ORDER NO. AD9203067A8

Service Manual

Simplified

Dolby NR-Equipped
Stereo Double Cassette Deck

* DOLBY B·C NR

Cassette Deck

RS-X320

Colour

(K)...Black Type

Area

Suffix for Model No.	Area	Colour
(EG)	Europe, Great Britain, Germany and Italy.	(K)
(GC)	Asia, Latin America, Middle Near East, Africa and Oceania.	

- **Please file and use this manual together with the service manual for Model No. RS-X302, Order No. AD9103045C8.**
- **This service manual indicates the main differences between; Original RS-X302.**

LINE-UP OF COMPONENTS

System Name	Unit	
SC-X320 (E)	ST-X302LA (E)	: Tuner
	SU-X320 (E)	: Amplifier
	RS-X320 (EG)	: Cassette Deck
	———	: CD Player
	SL-J110R (E)	: Turntable
	SB-CS65 (E)	: Speaker (Made in PAES)
SC-X320 (EB)	ST-X302LA (EB)	: Tuner
	SU-X320 (EB)	: Amplifier
	RS-X320 (EG)	: Cassette Deck
	SL-PJ28A (EB)	: CD Player (Made in MBV)
	SL-J110R (EB)	: Turntable
	SB-CS65 (E)	: Speaker (Made in PAES)
SC-X320 (EG)	ST-X302LA (EG)	: Tuner
	SU-X320 (EG)	: Amplifier
	RS-X320 (EG)	: Cassette Deck
	SL-PJ28A (EG)	: CD Player (Made in MBV)
	SL-J110R (EG)	: Turntable
	SB-CS65 (E)	: Speaker (Made in PAES)
SC-X320 (EI)	ST-X302LA (EI)	: Tuner (Made in PFS)
	SU-X320 (EG)	: Amplifier
	RS-X320 (EG)	: Cassette Deck
	SL-PJ28A (EG)	: CD Player (Made in MBV)
	SL-J110R (EG)	: Turntable
	SB-CS65 (E)	: Speaker (Made in PAES)

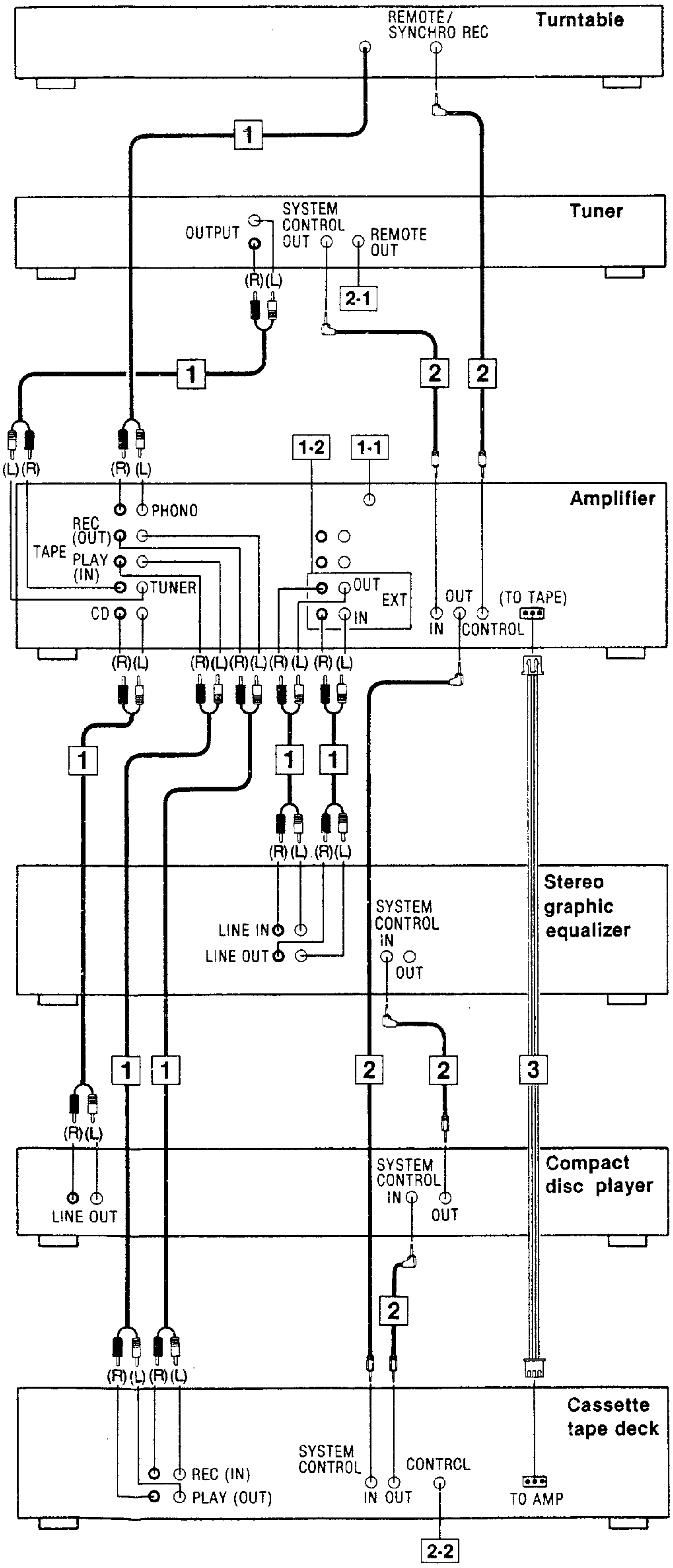
System Name	Unit	
SC-X320 (EF)	ST-X302LA (EF)	: Tuner (Made in PFS)
	SU-X320 (E)	: Amplifier
	RS-X320 (EG)	: Cassette Deck
	SL-PJ28A (E)	: CD Player (Made in MBV)
	SL-J110R (E)	: Turntable
	SB-CS65 (E)	: Speaker (Made in PAES)
SC-X320 (GC)	ST-X302LA (GC)	: Tuner
	SU-X320 (GC)	: Amplifier
	RS-X320 (GC)	: Cassette Deck
	SL-PJ28 (GC)	: CD Player
	SL-J110R (GC)	: Turntable
	SB-CD320 (GC)	: Speaker
SC-X320 (GN)	ST-X302LA (GN)	: Tuner
	SU-X320 (GN)	: Amplifier
	RS-X320 (GC)	: Cassette Deck
	SL-PJ28 (GN)	: CD Player
	SL-J110R (GN)	: Turntable
	SB-CD320 (GC)	: Speaker

*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

Technics

CONNECTIONS

Connections of each unit


REMOTE/
SYNCHRO REC
Turntable
1
SYSTEM
CONTROL
OUTPUT
OUT
REMOTE
OUT
Tuner
(R)(L)
2-1
1
2
2
(L)(R)
(R) (L)
1-2
1-1
PHONO
Amplifier
REC
(OUT)
TAPE
PLAY
(IN)
TUNER
CD
OUT
EXT
IN
OUT
(TO TAPE)
IN
CONTROL
(R)(L)
(R)(L)(R)(L)(R)(L)(R)(L)
1
1
1
(R)(L)(R)(L)
Stereo
graphic
equalizer
SYSTEM
CONTROL
IN
OUT
LINE IN
LINE OUT
1
1
2
2
3
(R)(L)
Compact
disc player
SYSTEM
CONTROL
IN
OUT
LINE OUT
2
(R)(L)(R)(L)
Cassette
tape deck
REC (IN)
PLAY (OUT)
SYSTEM
CONTROL
IN OUT
CONTROL
TO AMP
2-2

Connection diagrams shown are for connections to a Technics hi-fi component system.
Make connections in the numbered sequential order.

1 Connect the stereo connection cables

(included with the turntable, tuner, stereo graphic equalizer, and cassette tape deck).

Stereo connection cable

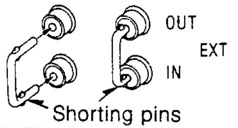
White (L)
Red (R)

1-1 "GND" terminal of the amplifier

This terminal is for use with a turntable which has a ground wire.

1-2 "EXT" terminals of the amplifier

When these terminals are not in use, be sure to insert the "shorting" pins (included).


OUT
EXT
IN
Shorting pins

2 Connect the L-type cables (included with the turntable, tuner, stereo graphic equalizer, compact disc player, and cassette tape deck).

2-1 "REMOTE OUT" terminal

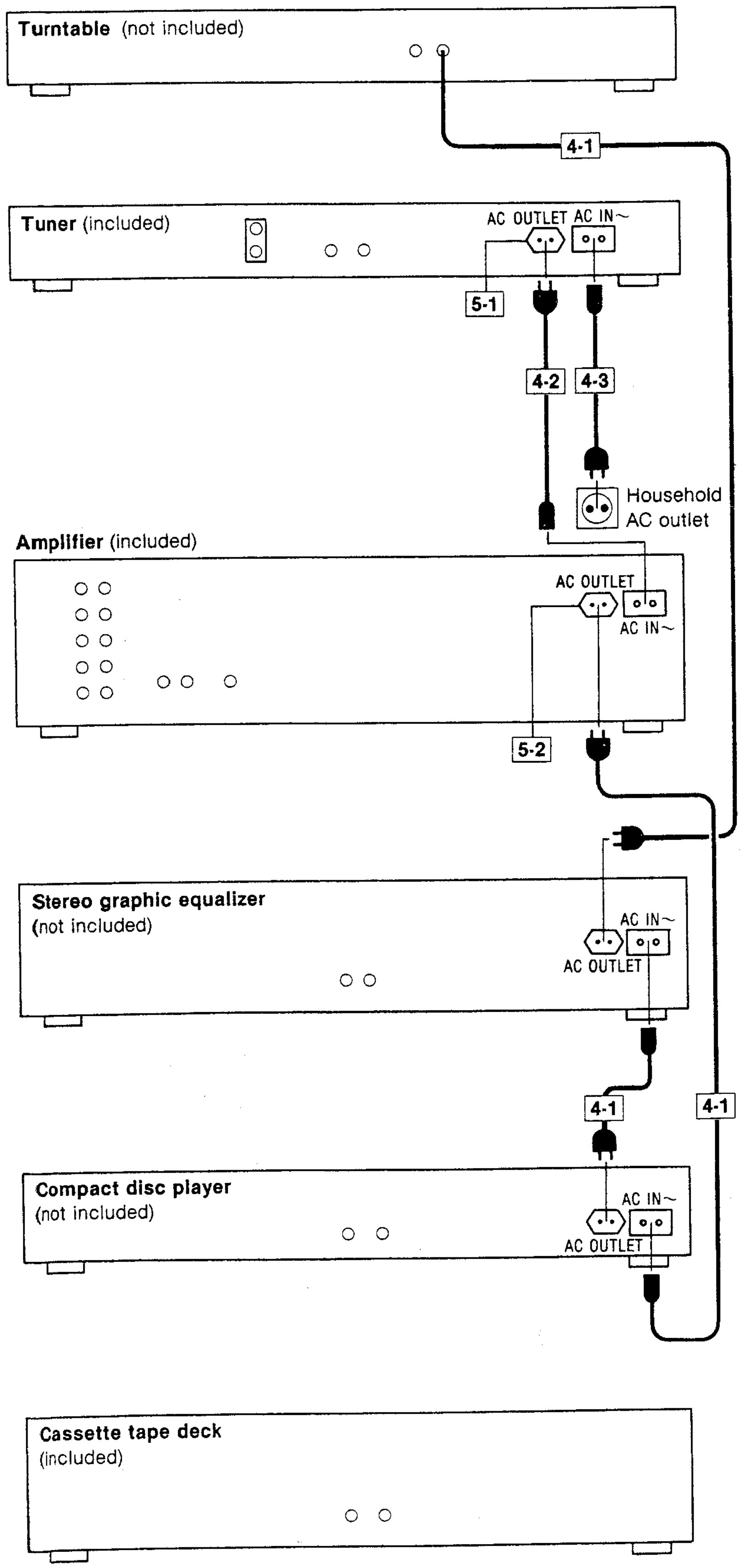
This terminal is used to connect to the "REMOTE IN" terminal of the Technics multi-compact disc player (not included).

2-2 "CONTROL" terminal

Make a connection from this terminal to the "CONTROL" terminal for a cassette deck on a Technics multi compact disc player.
(For detailed information, refer to the operating instructions of the Technics multi compact disc player.)

3 Connect the 3-core flat cable (included with the cassette tape deck).

Connections of each unit (continued)



4 Connect the AC power supply cords.

4-1 Connect the AC power supply cords (not included).

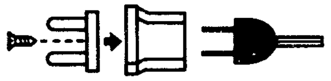
4-2 Connect the AC power supply cord (short for continental Europe) (included).

4-3 Connect the AC power supply cord (long for continental Europe) (included).

Connect this cord only after all other cables have been connected.

For areas except continental Europe

If the power plug will not fit your socket, use the power plug adaptor (included).



Notes:

- Configuration of the AC outlets and AC power supply cords differ according to area.
- If the compact disc player is not used in combination with these components, connect the AC power supply cord of the stereo graphic equalizer to the AC outlet of the amplifier.

5 "AC OUTLET"

5-1 "SWITCHED" outlet

Power is controlled by the power switch. Audio equipment rated up to 500 W can be connected here.

5-2 "UNSWITCHED" outlet:

Power is always available, regardless of power switch. Audio equipment rated up to 60 W can be connected here.

Note:

If other audio equipments are to be connected to these outlets, make sure that the total power consumption does not exceed the rating of each outlet.

After other units have been connected, tie up the cords in a bundle with a clip, etc. and place them behind the units.

■ CHANGE IN REPLACEMENT PARTS LIST (on pages 28~31, 34, 39, 40)

Notes:
- Mentioned in this parts list is only those different from Model No. RS-X302 (E). All other parts are the same as for RS-X302 (E).
- Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-X302 (E)	**RS-X320 (EG, GC)**		
INTEGRATED CIRCUIT(S)				
IC901	M50963-245SP	**M50963-248SP**	MICROCOMPUTER; MECHANICAL	
IC951	DN6851ALB	**LB9051A-WD**	HALL (DECK 1)	
IC971	DN6851ALB	**LB9051A-WD**	HALL (DECK 2)	
TRANSISTOR(S)				
Q5−8	KSA1175YGTA	**2SA1309A-R**	TRANSISTOR	
Q9−14	KSC2785YGTA	**2SC3311A-Q**	TRANSISTOR	
Q303	KSB564ACYGTA	**2SB621A-R**	TRANSISTOR	
Q551	KSA1175YGTA	**2SA1309A-R**	TRANSISTOR	
Q607	KSB564ACYGTA	**2SB621A-R**	TRANSISTOR	
Q905	KSC2785YGTA	**2SC3311A-Q**	TRANSISTOR	
Q911	KSA1175YGTA	**2SA1309A-R**	TRANSISTOR	
Q918	KSA1175YGTA	**2SA1309A-R**	TRANSISTOR	
Q929	KSC2785YGTA	**2SC3311A-Q**	TRANSISTOR	
Q932	KSC2785YGTA	**2SC3311A-Q**	TRANSISTOR	
TRANSFORMER(S)				
T601	RTP1H4G001	**RTP1I4G002**	POWER TRANSFORMER	⚠
CONNECTOR(S)				
CN4	RJS1A1704	**RJS1A6604**	CONNECTOR (4P)	
CN6	RJS1A1704	**RJS1A6604**	CONNECTOR (4P)	
FLAT CABLE(S)				
W3	RWJ0207210QQ	**RWJ5707210QQ**	FLAT CABLE (7P)	
W5	RWJ0210200QQ	**RWJ5710200QQ**	FLAT CABLE (10P)	
W8	RWJ0210200KQ	**RWJ5710200KQ**	FLAT CABLE (10P)	
RESISTORS				
R35, 36	ERDS2TJ474	**ERDS2TJ394**	C. RESISTOR, 1/4W, 390kΩ	
R131, 132	ERDS2TJ104	——	C. RESISTOR, 1/4W, 100kΩ	Deletion
R144, 145	ERDS2TJ103	**ERDS2TJ562**	C. RESISTOR, 1/4W, 5.6kΩ	
R631	ERD25FVJ2R7T	**ERG1SJ120E**	M. RESISTOR, 1W, 12Ω	⚠
R913	ERDS2TJ271	**ERDS2TJ391**	C. RESISTOR, 1/4W, 390Ω	
R914	ERDS2TJ681	**ERDS2TJ331**	C. RESISTOR, 1/4W, 330Ω	
CAPACITORS				
C7, 8	ECBT1H561KB5	**ECBT1H471KB5**	C. CAPACITOR, 50V, 470pF	
C13, 14	ECEA0JKA101B	**ECEA1AU101**	E. CAPACITOR, 10V, 100μF	
C15, 16	ECQB1H682JZ3	**ECQB1H822JF3**	C. CAPACITOR, 50V, 8200pF	
C21	ECEA0JKA101B	**ECEA1AU101**	E. CAPACITOR, 10V, 100μF	
C57, 58	ECEA1AKA470B	**ECEA1CKA470B**	E. CAPACITOR, 16V, 47μF	
C135, 136	ECQB1H822JZ	**ECQB1H153JF3**	C. CAPACITOR, 50V, 0.015μF	
CABINET AND CHASSIS				
3	RYF0104A-K2	**RYF0104C-K**	CASSETTE LID (DECK 1)	
4	RYF0105A-K2	**RYF0105B-K**	CASSETTE LID (DECK 2)	

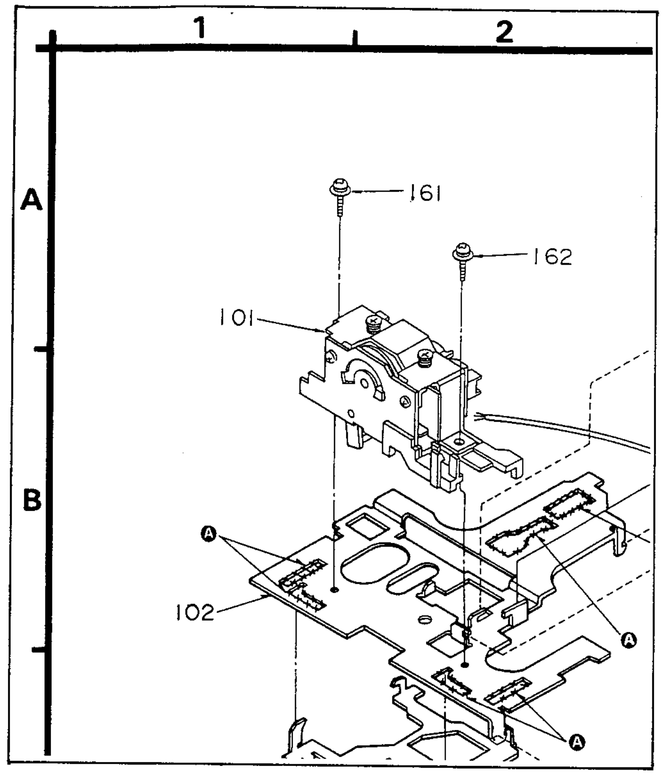
Ref. No.	Change of Part No.		Part Name & Description	Remarks
	RS-X302 (E)	**RS-X320 (EG, GC)**		
6	RGR0102A-C	**RGR0102A-G1**	REAR PANEL	
7	RFKJTX302LEK	**RFKJSX502E-K**	BOTTOM BOARD ASS'Y	
12	RFKGSX102E-K	**RFKGSX320EGK**	FRONT PANEL ASS'Y	
PACKING MATERIAL				
P1	RPG0843	**RPG1211**	PACKING CASE	
P3	SPSD152	**RPQ0164**	ACCESSORIES PAD	
P4	SPP756	**XZB50X65A02Z**	PROTECTION COVER (UNIT)	
P5	——	**XZB24X34C04**	PROTECTION BAG (ACCESSORIES)	Addition
ACCESSORIES				
A1	RQF1086	——	INSTRUCTION MANUAL UNIT	(EG) Deletion
		——	INSTRUCTION MANUAL UNIT	(GC) Deletion
A1-1	RFKSUX302E-K	**RFKSCX120E-K**	INSTRUCTION MANUAL ASS'Y (Europe.)	(EG)
		RQT1495-G	INSTRUCTION MANUAL (Asia, Latin America, Middle Near East and Africa.)	(GC)
		RQT1497-D	INSTRUCTION MANUAL (Germany and Italy.)	(EG)
		RQT1498-B	INSTRUCTION MANUAL (Great Britain and Oceania.)	(EG, GC)
A1-2	RQA0013	**RQA0013**	WARRANTY CARD (Europe, Great Britain and Germany and Italy.)	(EG)
		RQX7433ZA	WARRANTY CARD (Oceania.)	(GC)
		——	WARRANTY CARD (Asia, Latin America, Middle Near East and Africa.)	(GC) Deletion
A3	SJP2249-3	**SJP2276**	STEREO CONNECTION CABLE	
MECHANISM PARTS LIST				
DECK 1				
161	XTW2+6L		SCREW	**Change of Pcs.**
162	XTW2+8L	——	SCREW	Deletion
DECK 2				
261	XTW2+6L		SCREW	**Change of Pcs.**
262	XTW2+8L	——	SCREW	Deletion

■ EXPLODED VIEWS (on pages 35, 37.)

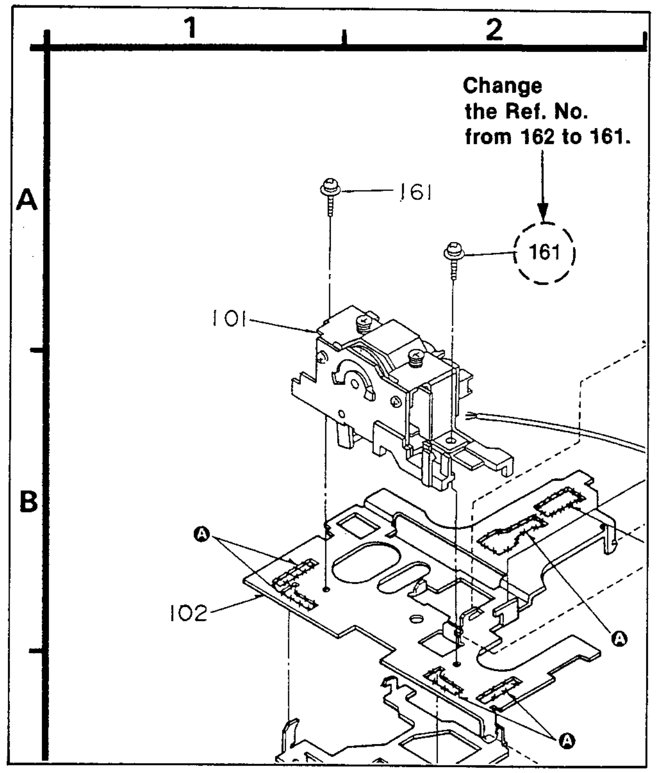
• Mechanical parts

• DECK 1

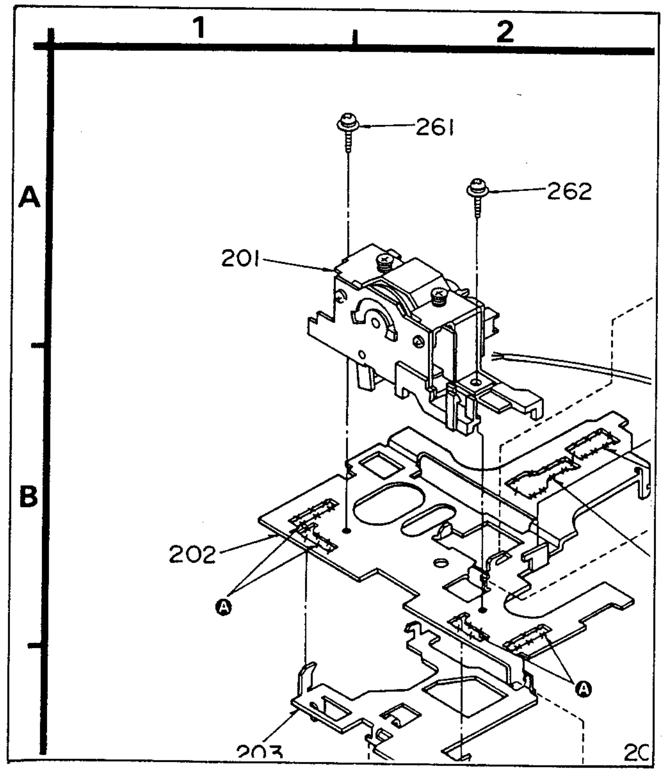
RS-X302

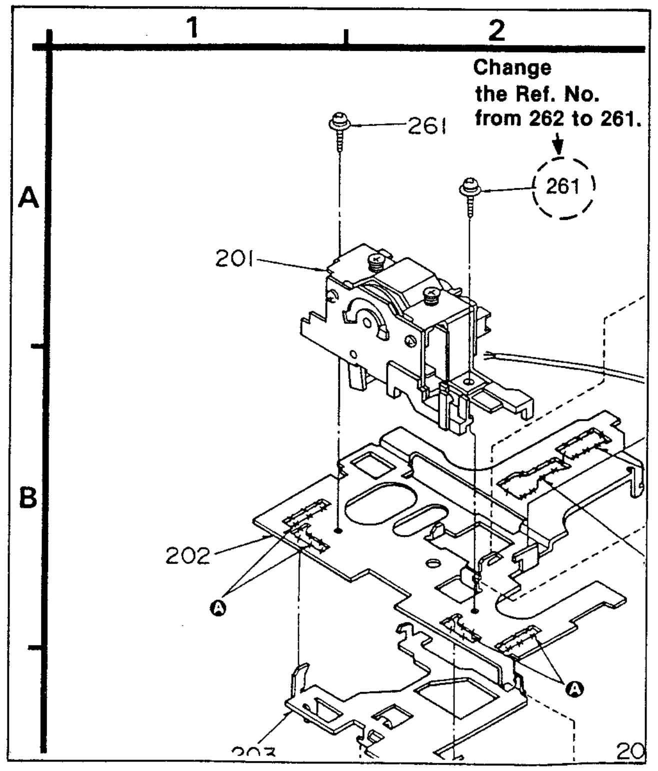

1
2
A
B
161
162
101
102
Ⓐ
Ⓐ
Ⓐ

RS-X320


1
2
A
B
Change the Ref. No. from 162 to 161.
161
161
101
102
Ⓐ
Ⓐ
Ⓐ

• DECK 2


1
2
A
B
261
262
201
202
203
Ⓐ
Ⓐ

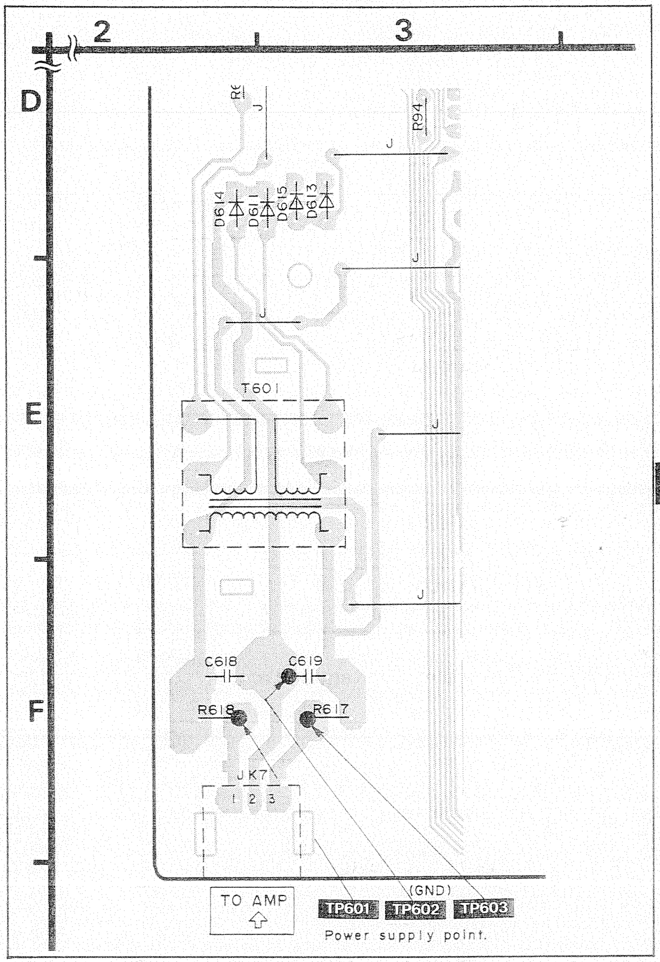

1
2
A
B
Change the Ref. No. from 262 to 261.
261
261
201
202
Ⓐ
Ⓐ

Printed in Japan
H920311120 SN/HH/TN

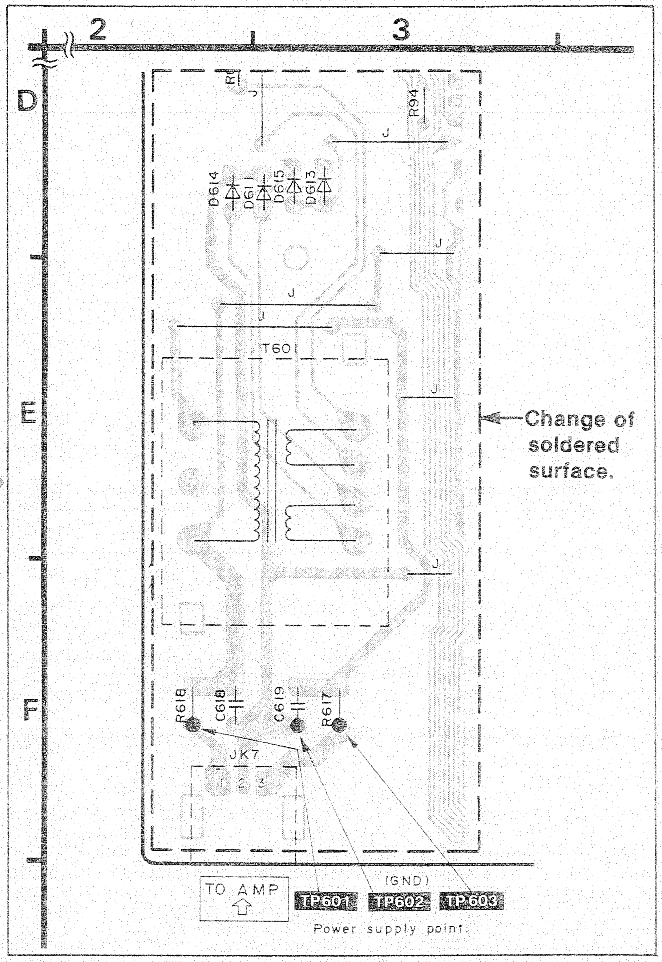
PRINTED CIRCUIT BOARDS (on pages 15, 16.)

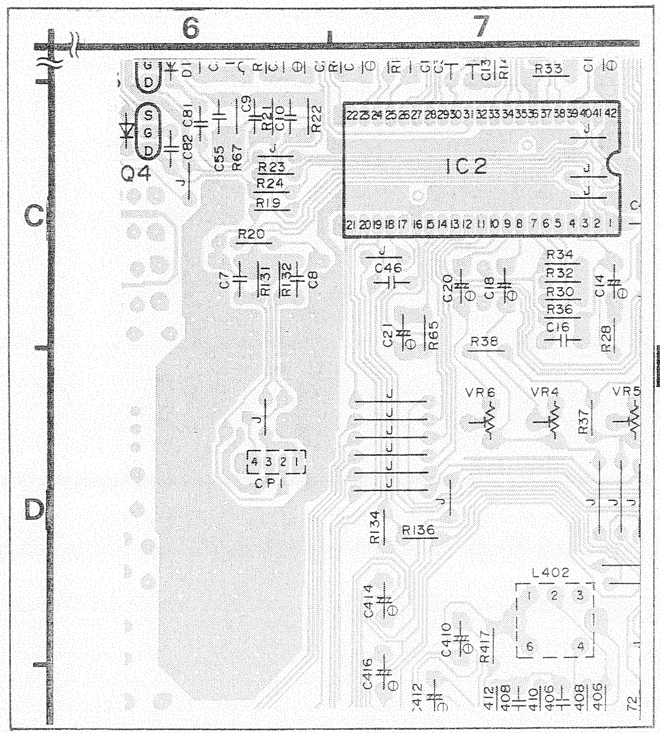
A MAIN P.C.B.

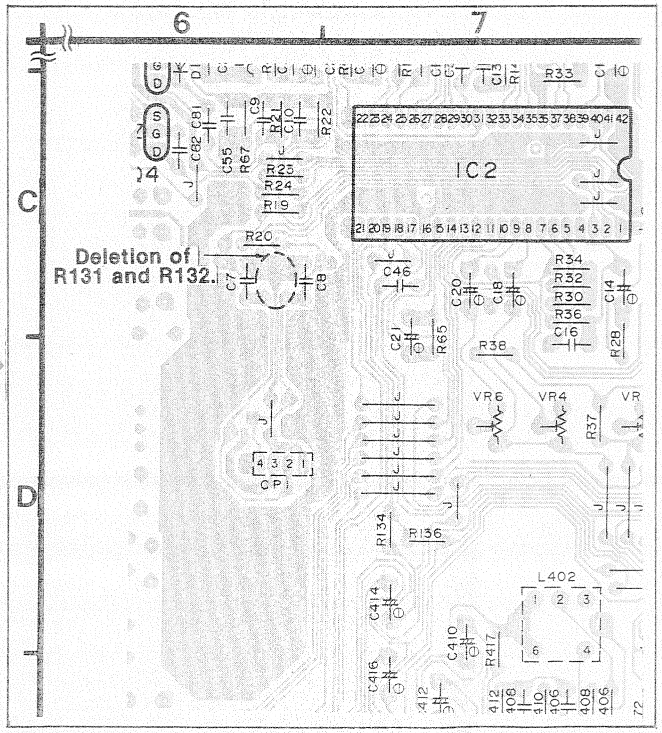
RS-X302


2
3
D
E
F
R94
D614
D611
D615
D613
T601
C618
C619
R618
R617
JK7
TO AMP
(GND)
TP601
TP602
TP603
Power supply point.

RS-X320


2
3
D
E
F
R94
D614
D611
D615
D613
T601
Change of soldered surface.
R618
C618
C619
R617
JK7
TO AMP
(GND)
TP601
TP602
TP603
Power supply point.

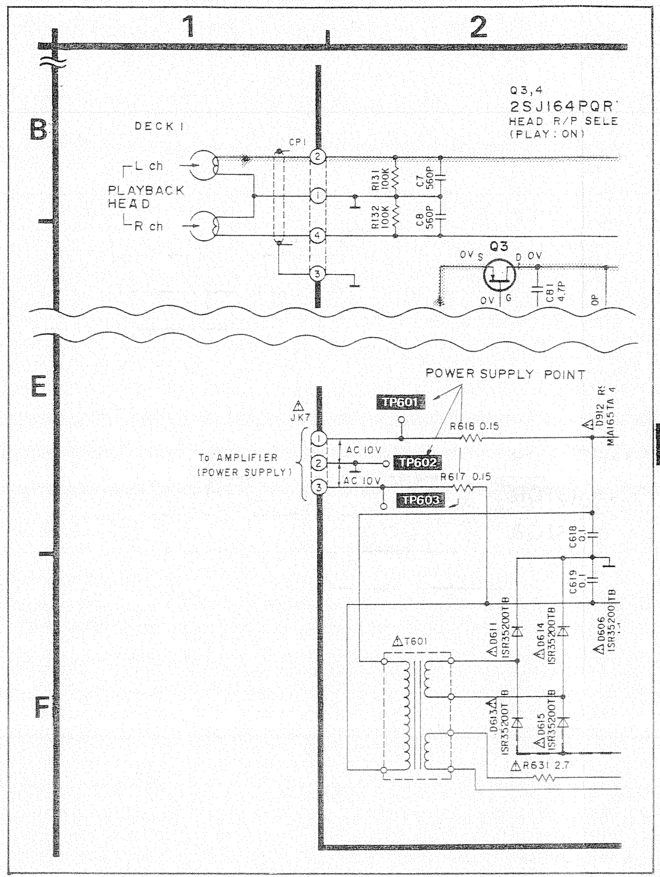

6
7
C
D
Q4
C81
C82
C9
C55
R67
R22
R23
R24
R19
R33
IC2
R20
C7
R131
R132
C8
C46
C20
C18
R34
R32
R30
R36
C16
C14
C21
R65
R38
R28
VR6
VR4
VR5
R37
CP1
R134
R136
L402
C414
C410
R417
C416


6
7
C
D
C81
C82
C55
R67
R22
R23
R24
R19
R33
IC2
R20
Deletion of R131 and R132.
C7
C8
C46
C20
C18
R34
R32
R30
R36
C16
C14
C21
R65
R38
R28
VR6
VR4
R37
CP1
R134
R136
L402
C414
C410
R417
C416

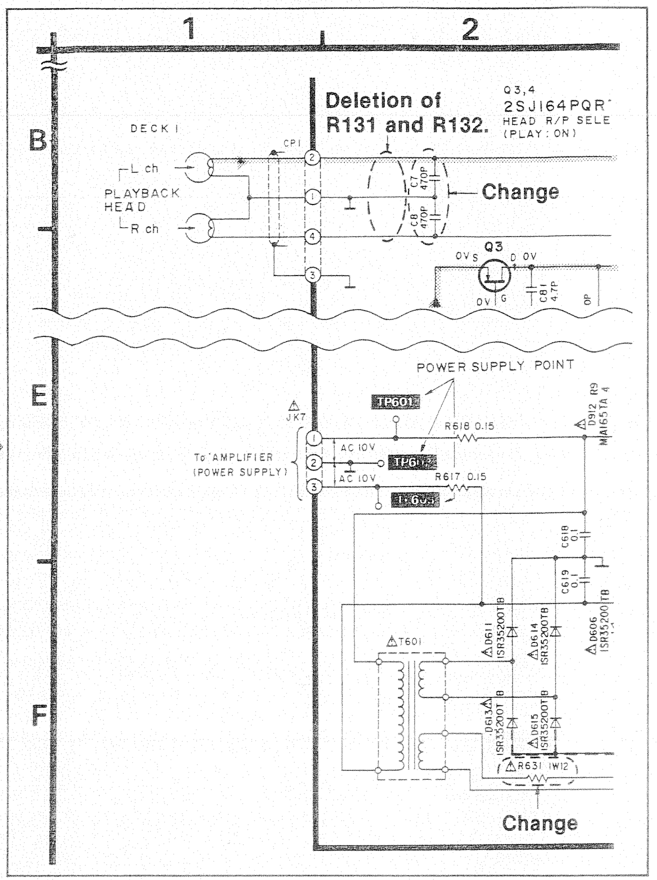
SCHEMATIC DIAGRAM (on page 19.)

A MAIN CIRCUIT

RS-X302

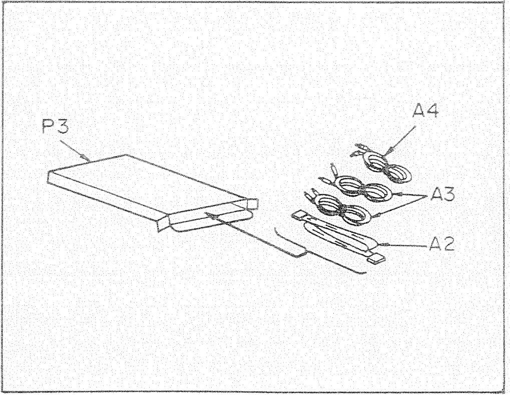

1
2
B
E
F
DECK I
L ch
PLAYBACK HEAD
R ch
CP1
R131 100K
R132 100K
C7 560P
C8 560P
Q3,4
2SJ164PQR
HEAD R/P SELE (PLAY: ON)
Q3
C81 47P
POWER SUPPLY POINT
JK7
To AMPLIFIER (POWER SUPPLY)
TP601
TP602
TP603
AC 10V
R618 0.15
R617 0.15
C618
C619
T601
D611
D614
D613
D615
D606
R631 2.7

RS-X320

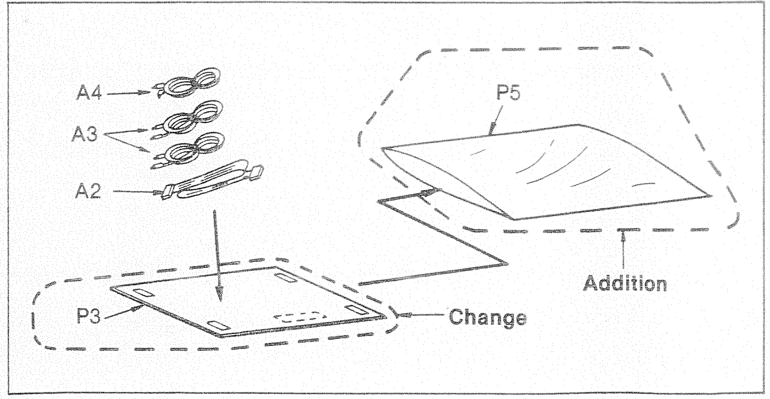

1
2
B
E
F
DECK I
L ch
PLAYBACK HEAD
R ch
CP1
Deletion of R131 and R132.
Q3,4
2SJ164PQR
HEAD R/P SELE (PLAY: ON)
C7 470P
C8 470P
Change
Q3
C81 47P
POWER SUPPLY POINT
JK7
To AMPLIFIER (POWER SUPPLY)
TP601
TP602
TP603
AC 10V
R618 0.15
R617 0.15
C618
C619
T601
D611
D614
D613
D615
D606
R631
Change

PACKAGING (on page 28.)

RS-X302



RS-X320


A4
A3
A2
P5
P3
Change
Addition

ORDER NO. AD9103045C8

Service Manual

Cassette Deck

RS-X302

Dolby NR-Equipped
Stereo Double Cassette Deck

Color

(K)... Black Type

* DOLBY B·C NR

Area

Country Code	Area	Color
(E)	Continental Europe.	(K)
(EB)	Great Britain.	
(EG)	F.R. Germany and Italy.	
(GC)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	

Technics
DECK 1
AUTO REVERSE
DECK 2

MECHANISM SERIES (AR300)

SPECIFICATIONS

■ CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
(tape deck 2) rec/play	Permalloy head
erasing	Double-gap ferrite head
(tape deck 1) play	Permalloy head
Motors	
(tape deck 2) Capstan/reel table drive	DC servo motor
(tape deck 1) Capstan/reel table drive	DC servo motor
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Tape speeds	4.8 cm/sec. (1-7/8 ips)
Frequency response (w/o Dolby NR)	
NORMAL	30 Hz～16 kHz 40 Hz～15 kHz (DIN)
CrO$_2$	30 Hz～16 kHz 40 Hz～15 kHz (DIN)
METAL	30 Hz～18 kHz 40 Hz～17 kHz (DIN)
S/N (signal level = max recording level, CrO$_2$ type tape)	
Dolby C NR ON	74 dB (CCIR)
Dolby B NR ON	66 dB (CCIR)
Dolby NR OFF	56 dB (A weighted)
Wow and flutter	0.1 % (WRMS)
Fast forward and rewind times	Approx. 110 seconds with C-60 cassette tape
Input sensitivity and impedance	
LINE	60 mV/47 kΩ
Output voltage and impedance	
LINE	400 mV/800 Ω

■ GENERAL

Power consumption	15 W
Dimensions (W × H × D)	360 × 129 × 285 mm (14-3/16″ × 5-3/32″ × 11-7/32″)
Weight	3.7 kg (8.1 lb.)

Note:
Specifications are subject to change without notice.
Weight and dimensions are approximate.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

Technics

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DISASSEMBLY INSTRUCTIONS .... 5~8
INFORMATION ON POWER SUPPLY FIXTURE 9
MEASUREMENTS AND ADJUSTMENTS .... 10~12
BLOCK DIAGRAM 13, 14
PRINTED CIRCUIT BOARDS .... 15~18
SCHEMATIC DIAGRAM .... 19~23
TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES 23
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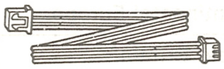
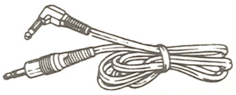
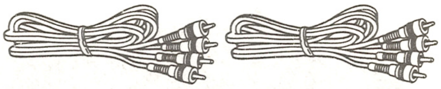
ACCESSORIES



3-core flat cable
(REX0346) .... 1 pc.

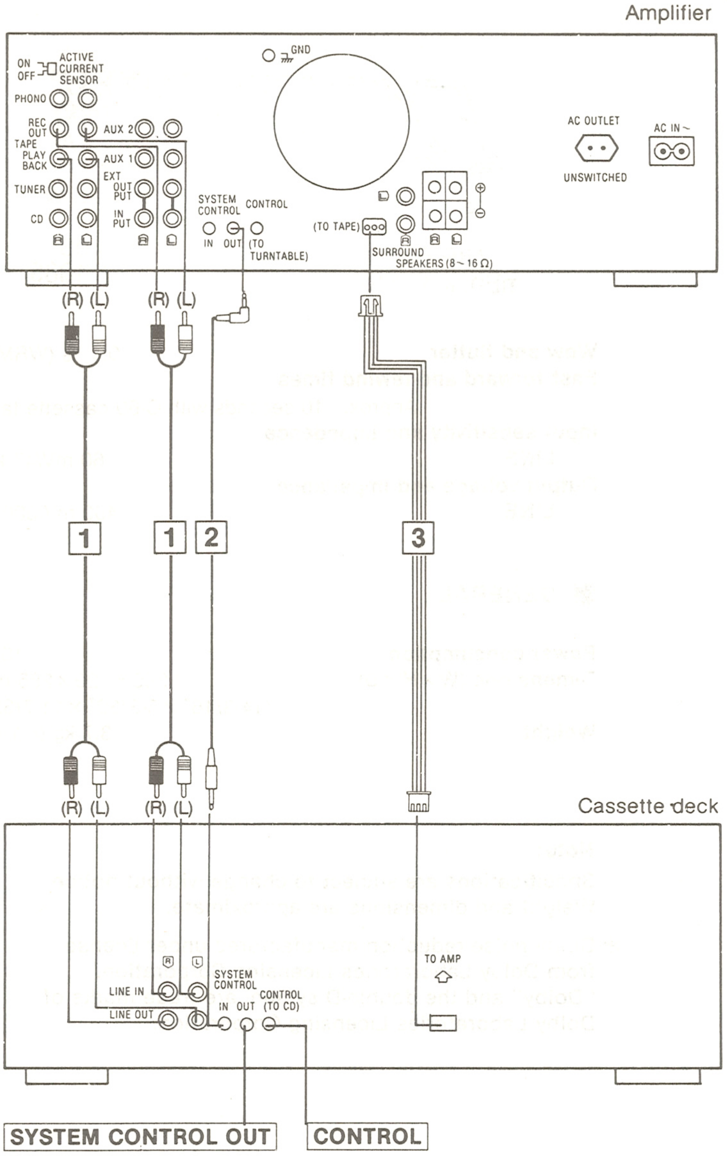


L-type cable
(SJP2257T) .... 1 pc.



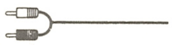
Stereo connection cables
(SJP2249-3) .... 2 pcs.

CONNECTIONS


Amplifier
ON
OFF
ACTIVE CURRENT SENSOR
GND
PHONO
REC OUT
TAPE
PLAY BACK
TUNER
CD
AUX 2
AUX 1
EXT
OUT PUT
IN PUT
SYSTEM CONTROL
IN
OUT
CONTROL
(TO TURNTABLE)
(TO TAPE)
SURROUND
SPEAKERS (8~16 Ω)
AC OUTLET
UNSWITCHED
AC IN ~
R
L
(R) (L)
(R) (L)
1
1
2
3
(R) (L)
(R) (L)
Cassette deck
LINE IN
LINE OUT
SYSTEM CONTROL
IN OUT
CONTROL (TO CD)
TO AMP
SYSTEM CONTROL OUT
CONTROL

Make connections in the numbered sequence by using the included cables.

Stereo connection cable
White (L)
Red (R)



1 Connect the stereo connection cables.

2 Connect the L-type cable.

3 Connect the flat cable.

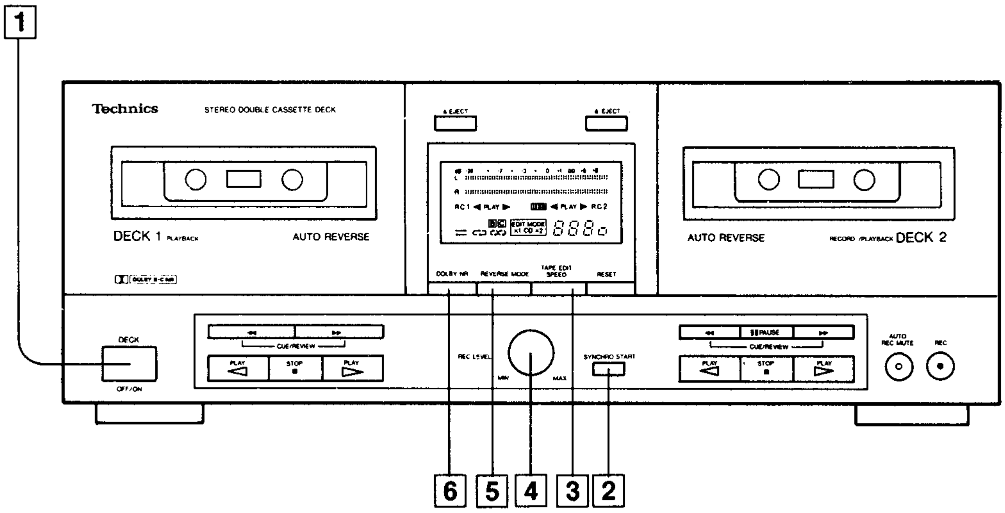
SYSTEM CONTROL OUT

This terminal is used to connect a Technics compact disc player or a Technics stereo graphic equalizer with the "SYSTEM CONTROL IN" terminal.

CONTROL

This terminal is used to connect a Technics multi compact disc player with the "CONTROL" terminal.

■ LOCATION OF CONTROLS


1
Technics
STEREO DOUBLE CASSETTE DECK
EJECT
EJECT
DECK 1 PLAYBACK
AUTO REVERSE
AUTO REVERSE
RECORD/PLAYBACK DECK 2
DOLBY NR
REVERSE MODE
TAPE EDIT SPEED
RESET
DECK
OFF/ON
CUE/REVIEW
PLAY
STOP
PLAY
REC LEVEL
MIN
MAX
SYNCHRO START
PAUSE
CUE/REVIEW
PLAY
STOP
PLAY
AUTO REC MUTE
REC
6
5
4
3
2

Controls common to both tape decks

1 DECK ON/OFF switch (DECK)

2 Synchro-start button (SYNCHRO START)

This button can be used to start a tape-to-tape recording, simultaneously starting tape deck 1 (the playback deck) and tape deck 2 (the recording deck).

3 Tape-to-tape recording tape-speed selector (TAPE EDIT SPEED)

This selector can be used to select the recording speed when a tape-to-tape recording is made.

4 Recording-level control (REC LEVEL)

This control can be used to regulate the recording level of tape deck 2.

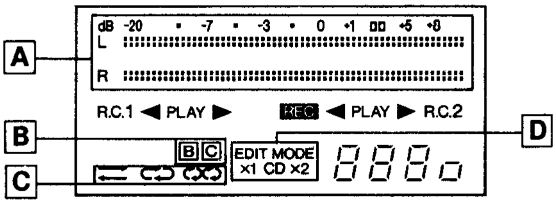
5 Reverse-mode selector (REVERSE MODE)

This selector can be used for selection of the reverse mode (for either playback or recording).

6 Dolby noise-reduction selector (DOLBY NR)

This selector can be used to reduce the hiss noise that is characteristic of tapes. This unit is provided with both the B-type and C-type noise-reduction systems.

Indicators common to both tape decks


A
B
C
D
dB -20 -7 -3 0 +1 +3 +5 +8
L
R
R.C.1 ◀ PLAY ▶
REC ◀ PLAY ▶ R.C.2
B C
EDIT MODE
×1 CD ×2

A Input level meter

During playback, this meter indicates the level of the recorded sound source.
During recording, it indicates the level being recorded, adjusted by the recording-level control.

B Dolby noise-reduction indicators (B, C)

One of these indicators illuminates to show the type of Dolby noise-reduction system selected by pressing the Dolby noise-reduction selector.

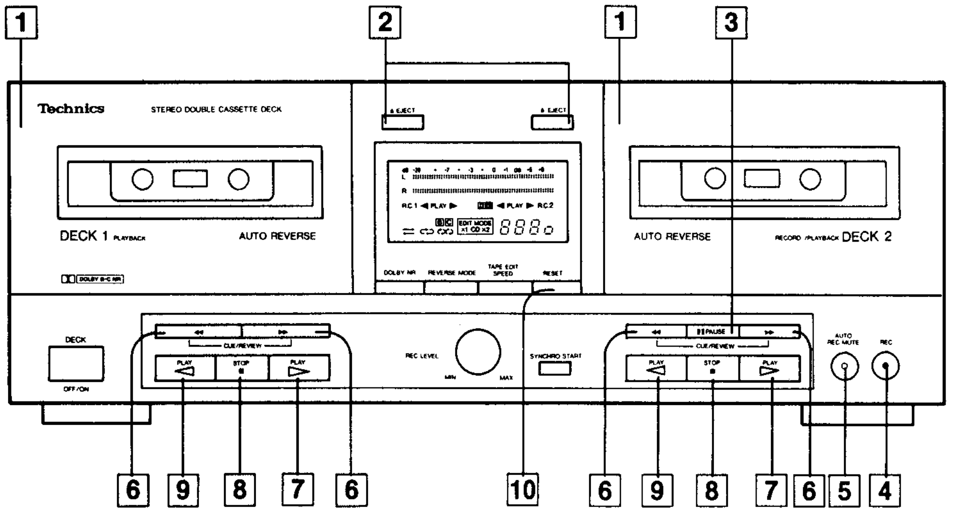
C Reverse-mode indicators (⇄ , ⊂⊃ , ∞)

One of these indicators illuminates to show which of the reverse modes was selected by the reverse-mode selector.

D Edit-recording indicators (EDIT MODE, CD, ×1, ×2)

The words "EDIT MODE" and "×1 (or "×2") indicator will illuminate when a tape-to-tape recording is made.
The words "EDIT MODE" and "CD" indicator will illuminate when a CD edit-recording is made.

Tape deck 1 **Tape deck 2**


1
2
1
3
Technics
STEREO DOUBLE CASSETTE DECK
DECK 1 PLAYBACK
AUTO REVERSE
AUTO REVERSE
RECORD/PLAYBACK DECK 2
EJECT
EJECT
DOLBY NR
REVERSE MODE
TAPE EDIT SPEED
RESET
DECK
OFF/ON
CUE/REVIEW
PLAY
STOP
PLAY
REC LEVEL
MIN
MAX
SYNCHRO START
PAUSE
AUTO REC MUTE
REC
6
9
8
7
6
10
6
9
8
7
6
5
4

Controls applicable to tape deck 1 and/or 2

1 Cassette holder

2 Eject button (▲ EJECT)

This button can be used to open the cassette holder.

3 Pause button (❚❚ PAUSE)

This button can be used to temporarily stop the tape playback or recording, on tape deck 2 only.

4 Record button (REC)

This button can be used to change tape deck 2 to the recording stand-by mode.

5 Automatic-record-muting button (AUTO REC MUTE)

This button can be used to make a silent interval on the tape during recording, on tape deck 2 only.

6 Fast-forward/cue, rewind/review buttons (◀◀, ▶▶)

These buttons are used to advance or rewind the tape. During playback, these buttons are used to cue or review while listening to the contents at high speed.

7 Forward-side playback button (▷ PLAY)

This button can be used to start the playback or recording of side "A" of the cassette in tape deck 2 only.
(The tape will then begin moving in the left-to-right direction.)

8 Stop button (■ STOP)

This button can be used to stop tape movement.

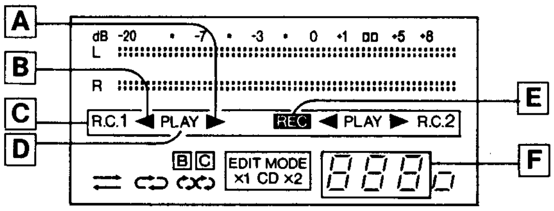
9 Reverse-side playback button (◁ PLAY)

This button can be used to start the playback or recording of side "B" of the cassette in tape deck 2 only.
(The tape will then begin moving in the right-to-left direction.)

10 Tape counter reset button (RESET)

This button can be used to reset the tape counter indication (for tape deck 2 only) to "000".

Indicators applicable only to deck 1 or 2


A
B
C
D
E
F
dB -20 • -7 • -3 • 0 +1 DD +5 +8
L
R
R.C.1 ◀ PLAY ▶
REC ◀ PLAY ▶ R.C.2
B C
EDIT MODE
x1 CD x2
8 8 8 0

A Forward-side indicator (▶)

This indicator illuminates during playback or recording on tape deck 2 to indicate that side "A" of the tape is being used.

B Reverse-side indicator (◀)

This indicator illuminates during playback or recording on tape deck 2 to indicate that side "B" of the tape is being used.

C Remote-control indicator (R.C.1/R.C.2)

This indicator illuminates to indicate that this tape deck can now be controlled by the remote-control transmitter (included with tuner).

D Playback indicator (PLAY)

When this indicator illuminates steadily, it indicates that this tape deck is in the playback mode or the recording mode (for tape deck 2 only).
When it flashes continually, this is an indication that tape deck 2 is in the pause mode or the recording stand-by mode.

E Recording indicator (REC)

This indicator illuminates to indicate that tape deck 2 is in the recording stand-by mode or is recording.

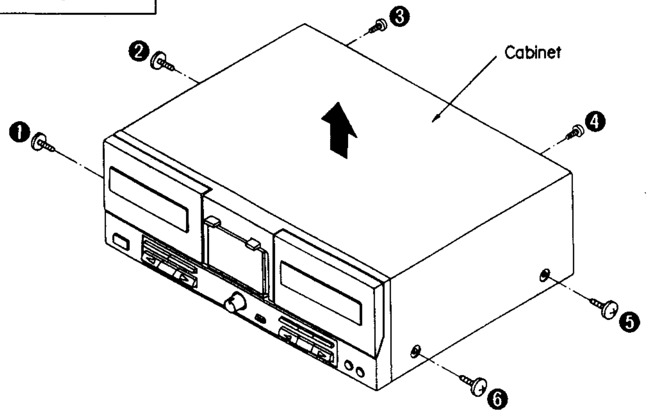
F Tape deck 2 counter

Indicates the amount of tape movement.

■ DISASSEMBLY INSTRUCTIONS

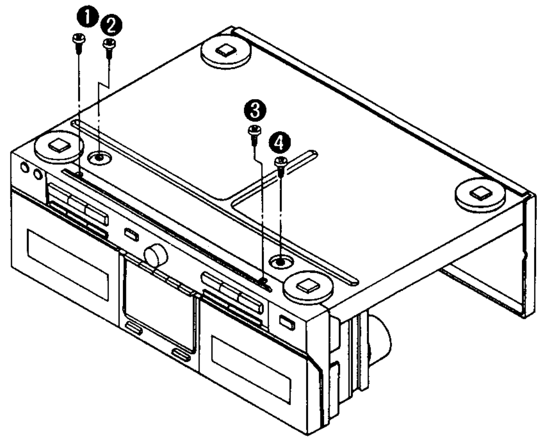
"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the cabinet
Procedure 1	

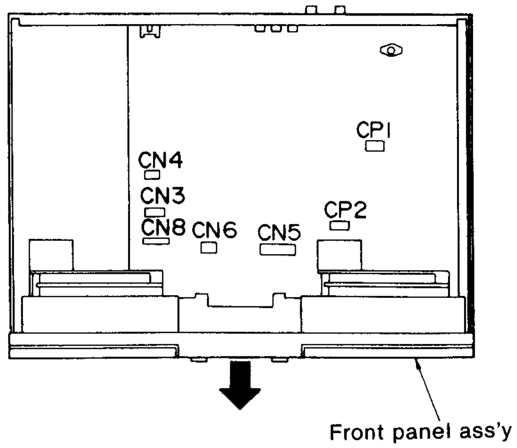

❶
❷
❸
❹
❺
❻
Cabinet

- Remove the 6 screws (❶~❻).

Ref. No. 2	Removal of the front panel ass'y
Procedure 1→2	



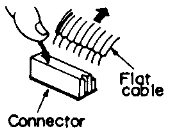
1. Remove the 4 screws (❶~❹).


CP1
CN4
CN3
CN8
CN6
CN5
CP2
Front panel ass'y

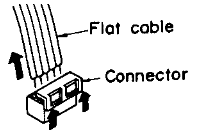
2. Remove the 2 connectors (CP1, CP2).
3. Remove the 5 flat cables (CN3, CN4, CN5, CN6, CN8).
4. Remove the front panel ass'y in the direction of arrow.

How to remove the flat cable

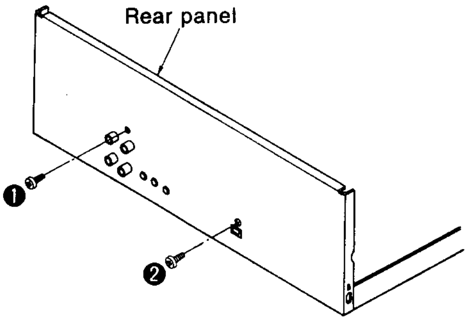
- Pull out the flat cable while pressing the connector. (CN3, CN5, CN8)


Flat cable
Connector

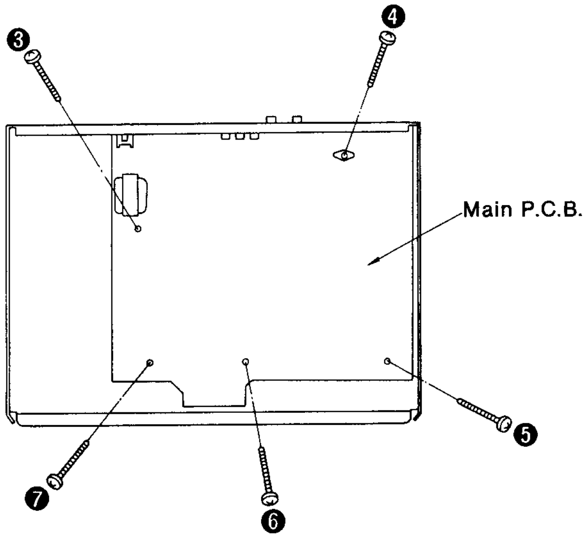
1. Lift the connector.
2. Pull out the flat cable. (CN4, CN6)


Flat cable
Connector

Ref. No. 3	Removal of the main P.C.B.
Procedure 1→2→3	


Rear panel
❶
❷

1. Remove the 2 screws (❶, ❷).

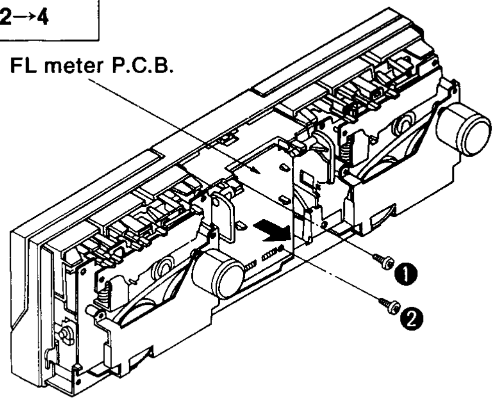

❸
❹
Main P.C.B.
❺
❻
❼

2. Remove the 5 screws (❸~❼).

Ref. No. 4

Removal of the FL meter P.C.B.

Procedure 1→2→4

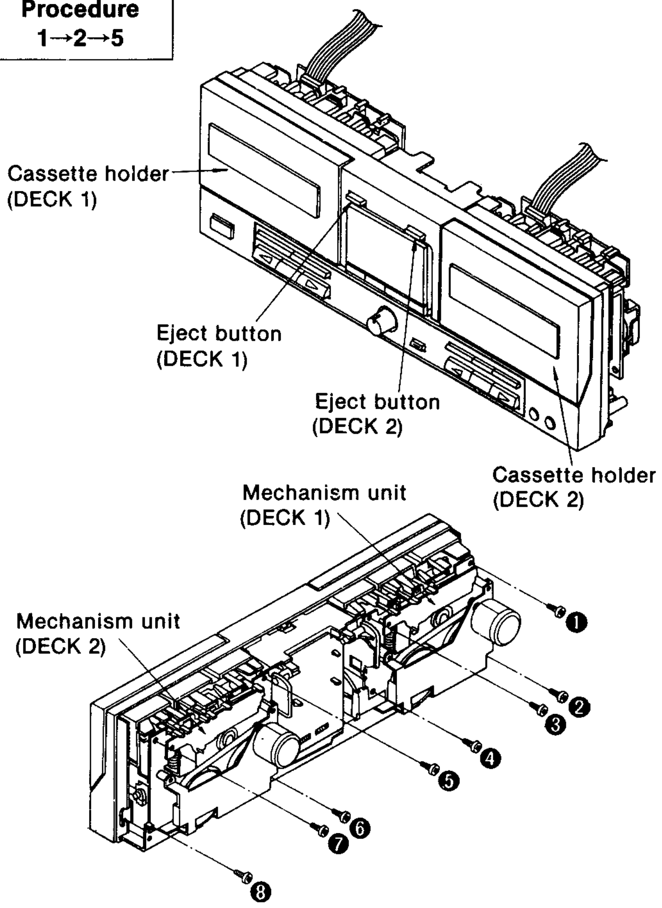

FL meter P.C.B.
❶
❷

1. Remove the 2 screws (❶, ❷).
2. Remove the FL meter P.C.B. in the direction of arrow.

Ref. No. 5

Removal of the mechanism units (DECK 1, DECK 2)

Procedure 1→2→5


Cassette holder (DECK 1)
Eject button (DECK 1)
Eject button (DECK 2)
Cassette holder (DECK 2)
Mechanism unit (DECK 1)
Mechanism unit (DECK 2)
❶
❷
❸
❹
❺
❻
❼
❽

■ Removal of the mechanism unit (DECK 1)

1. Press the eject button and open the cassette holder.
2. Remove the 4 screws (❶~❹).

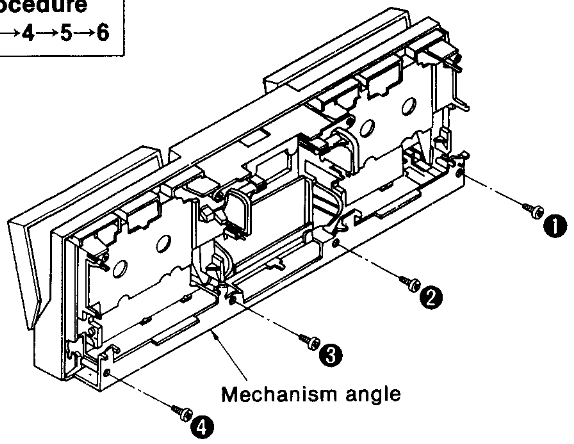
■ Removal of the mechanism unit (DECK 2)

1. Press the eject button and open the cassette holder.
2. Remove the 4 screws (❺~❽).

Ref. No. 6

Removal of the mechanism angle

Procedure 1→2→4→5→6

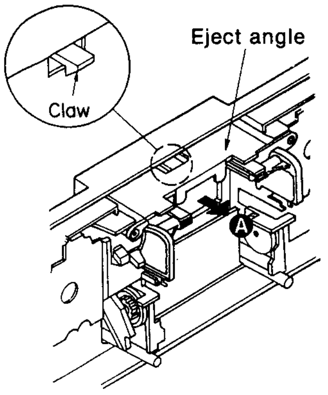

❶
❷
❸
❹
Mechanism angle

- Remove the 4 screws (❶~❹).

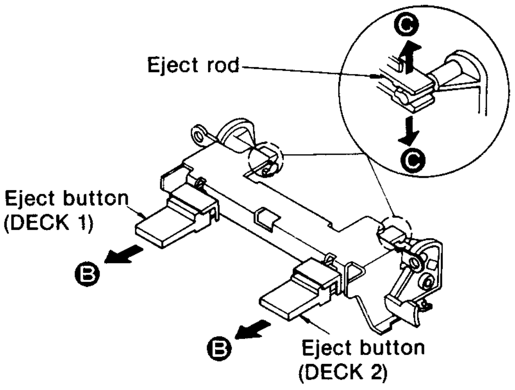
Ref. No. 7

Removal of the eject angle, eject buttons, and eject lever

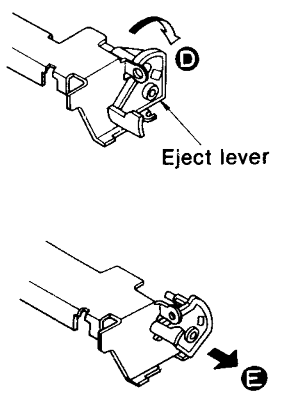
Procedure 1→2→4→5→7


Eject angle
Claw
Ⓐ

1. Release the 1 claw.
2. Pull out the eject angle in the direction of arrow Ⓐ.

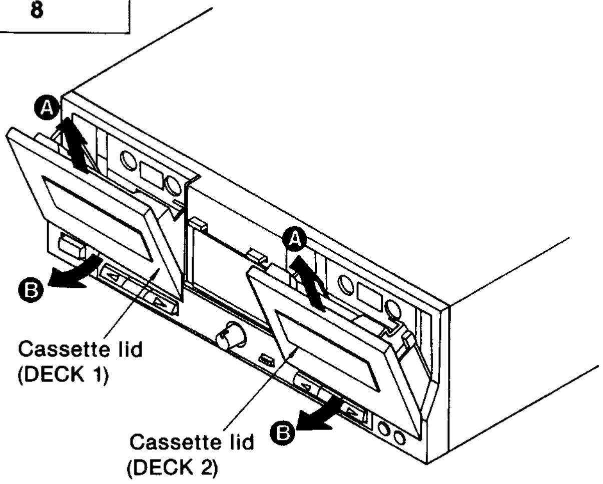

Eject rod
Ⓒ
Ⓒ
Eject button (DECK 1)
Ⓑ
Ⓑ
Eject button (DECK 2)

3. Pull out the claw of the eject rod in the direction of arrow Ⓑ, remove the eject buttons and the eject rod in the direction of arrow Ⓒ.


Ⓓ
Eject lever
Ⓔ

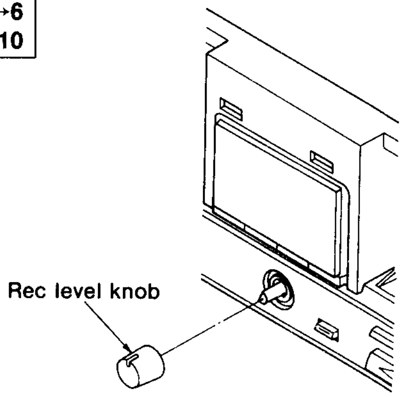
4. Turn the eject lever in the direction of arrow Ⓓ, and remove the eject lever in the direction of arrow Ⓔ.

Ref. No. 8	**Removal of the cassette lid (DECK 1, DECK 2)**
Procedure 8	

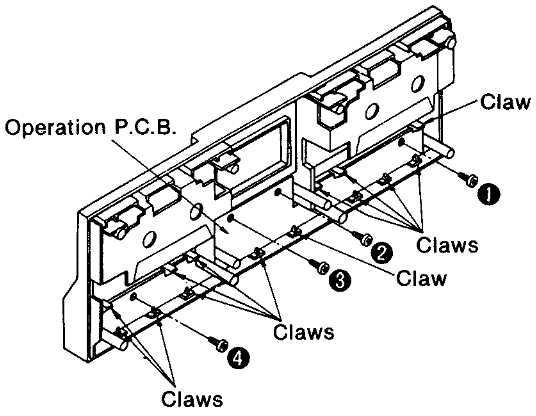

Ⓐ
Ⓑ
Ⓐ
Cassette lid
(DECK 1)
Cassette lid
(DECK 2)
Ⓑ

- Lift the cassette lid in the direction of arrow Ⓐ and remove it in the direction of arrow Ⓑ.

Ref. No. 10	**Removal of the operation P.C.B.**
Procedure 1→2→4→5→6 →7→8→9→10	

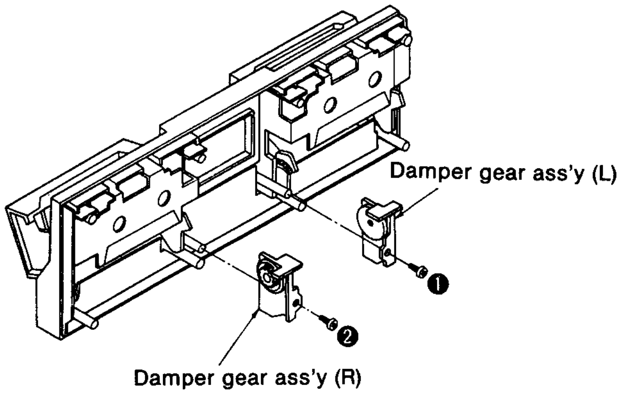

Rec level knob

1. Remove the rec level knob.

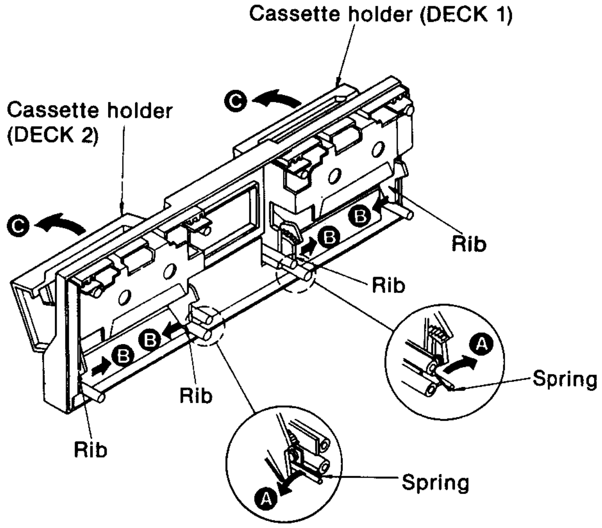

Operation P.C.B.
Claw
❶
Claws
❷
Claw
❸
Claws
❹
Claws

2. Remove the 4 screws (❶~❹).
3. Release the 14 claws.

Ref. No. 9	**Removal of the cassette holder (DECK 1, DECK 2)**
Procedure 1→2→4→5 →6→7→8→9	

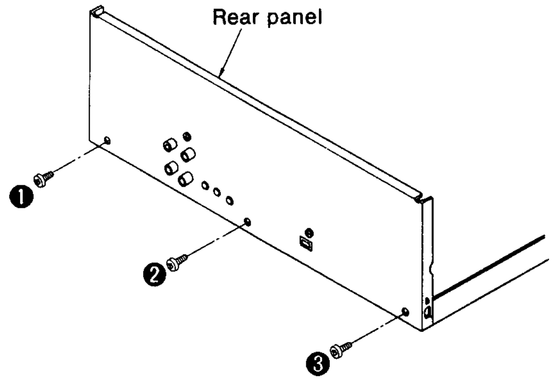

Damper gear ass'y (L)
❶
❷
Damper gear ass'y (R)

1. Remove the 2 screws (❶, ❷).
2. Remove the damper gear ass'y (L) and damper gear ass'y (R).

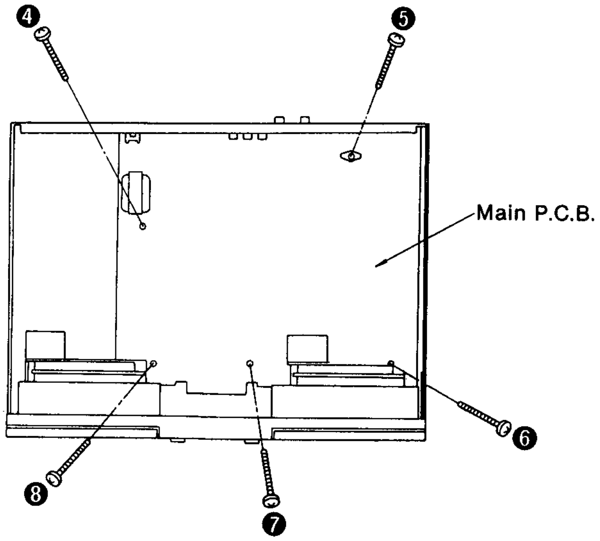

Cassette holder (DECK 1)
Cassette holder
(DECK 2)
Ⓒ
Ⓒ
Ⓑ
Ⓑ
Rib
Rib
Ⓑ
Ⓑ
Ⓐ
Spring
Rib
Rib
Ⓐ
Spring

3. Remove the springs in the direction of arrow Ⓐ.
4. Remove the ribs in the direction of arrow Ⓑ.
5. Remove the cassette holder in the direction of arrow Ⓒ.

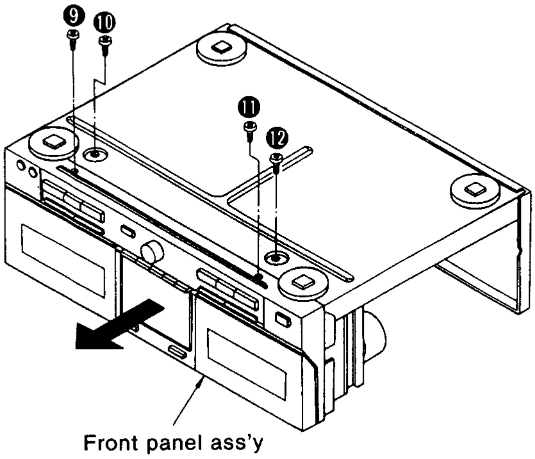
Ref. No. **11**	**How to check the main P.C.B.**
Procedure **1→11**	


Rear panel
❶
❷
❸

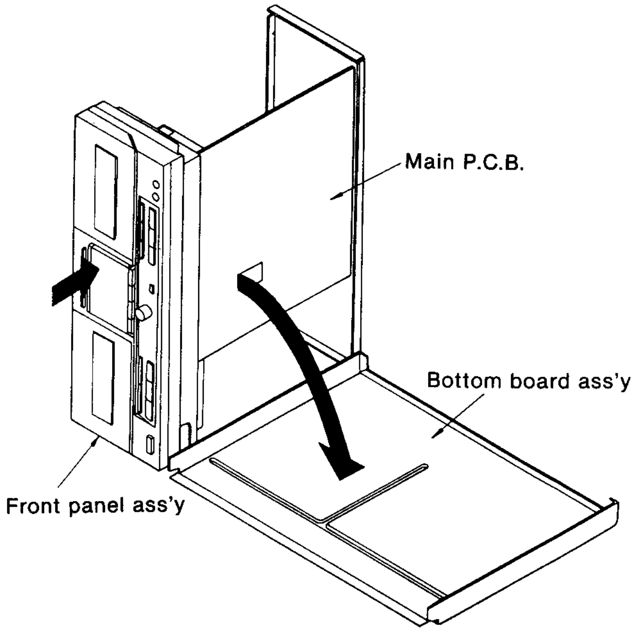
1. Remove the 3 screws (❶~❸).


❹
❺
Main P.C.B.
❻
❽
❼

2. Remove the 5 screws (❹~❽).


❾
❿
⓫
⓬
Front panel ass'y

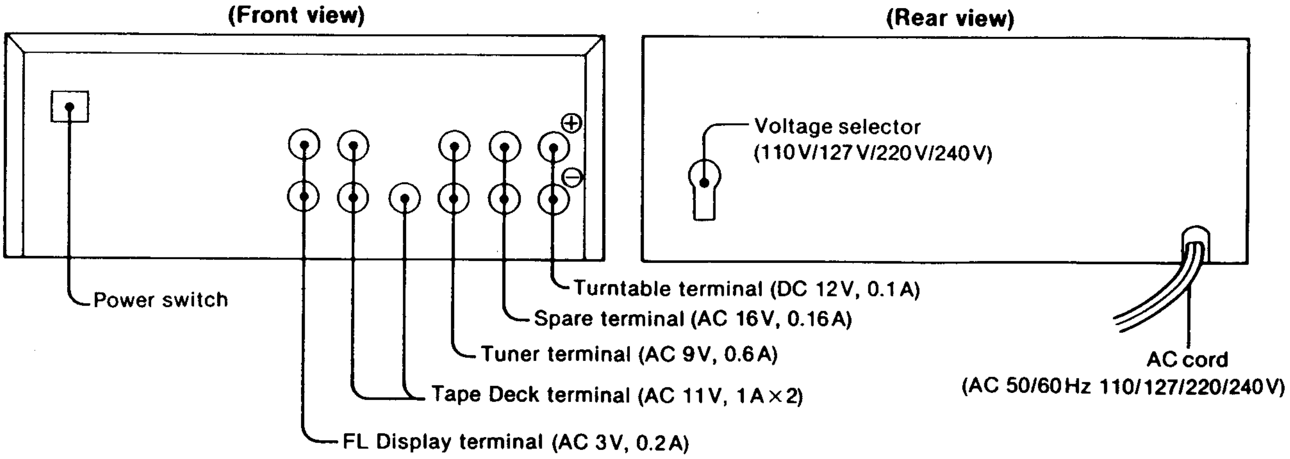
3. Remove the 4 screws (❾~⓬).
4. Remove the front panel ass'y in the direction of arrow.


Main P.C.B.
Bottom board ass'y
Front panel ass'y

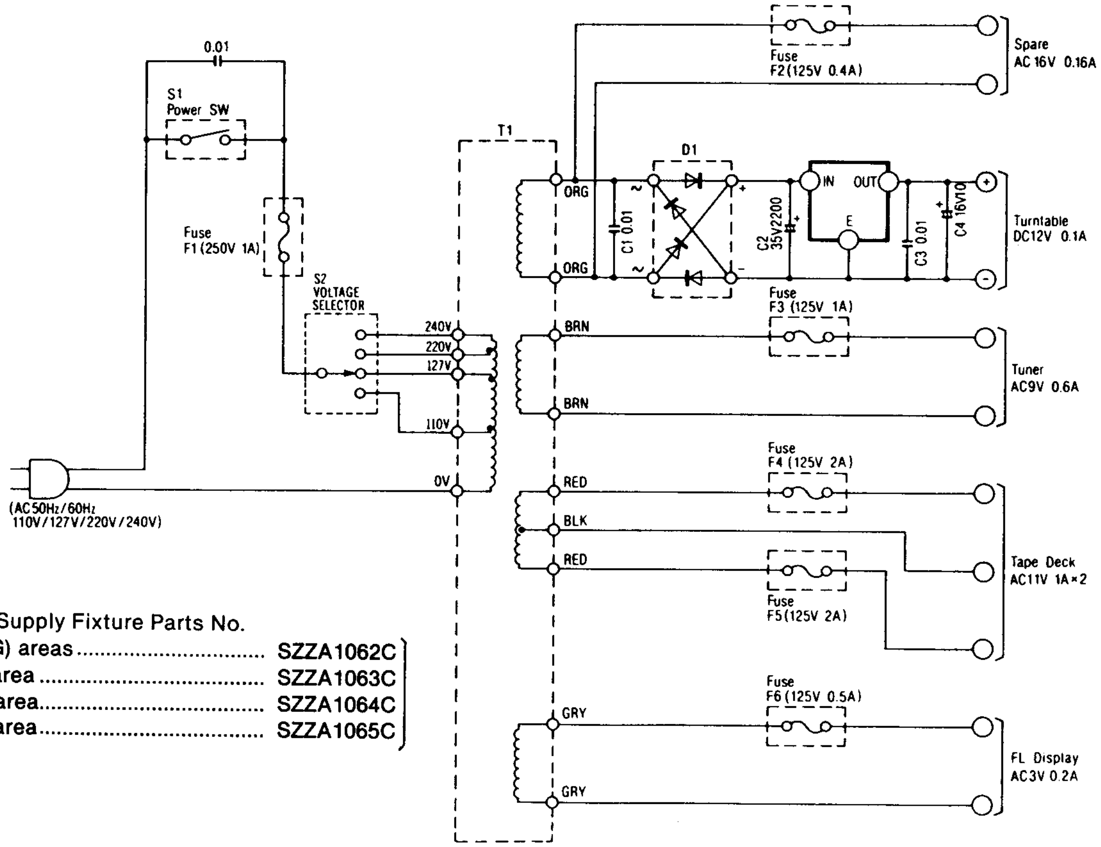
5. Remove the bottom board ass'y.
6. Reinstall the front panel ass'y to the main P.C.B.

■ INFORMATION ON POWER SUPPLY FIXTURE

• LOCATION


(Front view)
(Rear view)
Power switch
FL Display terminal (AC 3V, 0.2A)
Tape Deck terminal (AC 11V, 1A×2)
Tuner terminal (AC 9V, 0.6A)
Spare terminal (AC 16V, 0.16A)
Turntable terminal (DC 12V, 0.1A)
⊕
⊖
Voltage selector
(110V/127V/220V/240V)
AC cord
(AC 50/60Hz 110/127/220/240V)

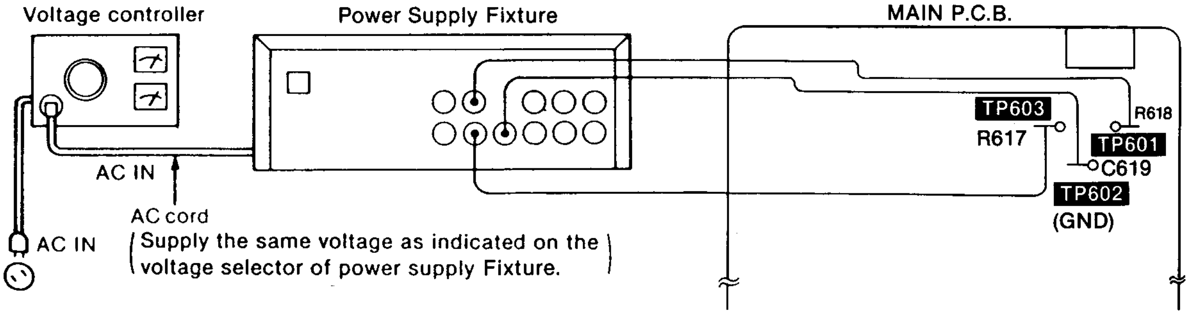
• SCHEMATIC DIAGRAM (Reference)


0.01
S1
Power SW
Fuse
F1 (250V 1A)
S2
VOLTAGE
SELECTOR
240V
220V
127V
110V
0V
(AC50Hz/60Hz
110V/127V/220V/240V)
T1
ORG
ORG
BRN
BRN
RED
BLK
RED
GRY
GRY
D1
C1 0.01
C2
35V2200
IN
OUT
E
C3 0.01
C4 16V10
Fuse
F2 (125V 0.4A)
Fuse
F3 (125V 1A)
Fuse
F4 (125V 2A)
Fuse
F5 (125V 2A)
Fuse
F6 (125V 0.5A)
Spare
AC16V 0.16A
Turntable
DC12V 0.1A
Tuner
AC9V 0.6A
Tape Deck
AC11V 1A×2
FL Display
AC3V 0.2A

※ Power Supply Fixture Parts No.

• (E, EG) areas	SZZA1062C
• (EB) area	SZZA1063C
• (GN) area	SZZA1064C
• (GC) area	SZZA1065C

• HOW TO CONNECT


Voltage controller
Power Supply Fixture
MAIN P.C.B.
AC IN
AC IN
AC cord
TP603
R617
R618
TP601
C619
TP602
(GND)

(Supply the same voltage as indicated on the voltage selector of power supply Fixture.)

MEASUREMENTS AND ADJUSTMENTS

Measurement Condition

- Rec. level control; Maximum
- Reverse-mode selector switch; ⇄
- Tape-to-tape-recording tape-speed selector; X1
- Dolby NR selector switch; Off
- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature 20±5°C (68±9°F)

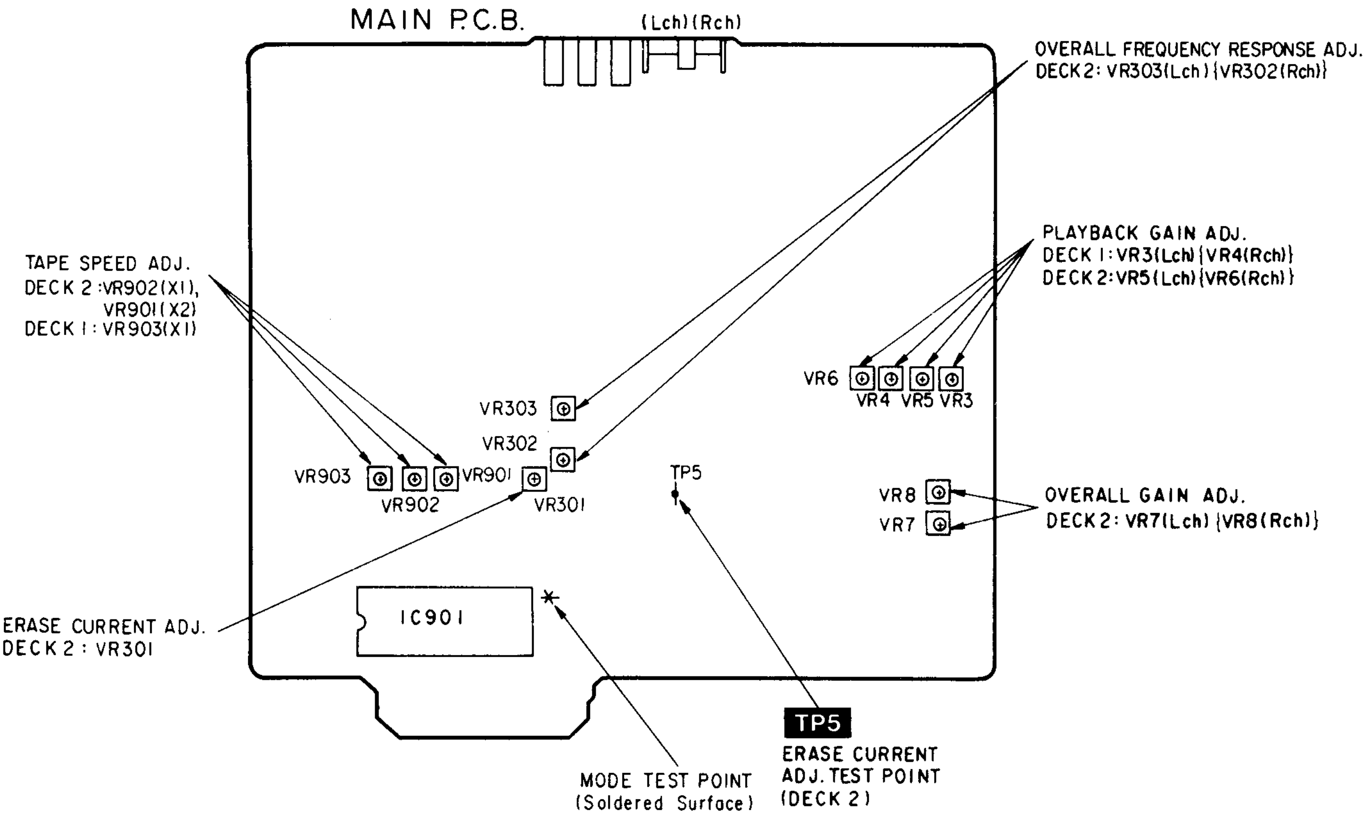
Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator
- ATT (Attenuator)
- DC voltmeter
- Resistor (600Ω)

Test tape

- Head azimuth adjustment (8kHz, −20dB); QZZCFM
- Tape speed adjustment (3kHz, −10dB); QZZCWAT
- Playback frequency response (315Hz, 12.5kHz, 10kHz, 8kHz, 4kHz, 1kHz, 250Hz, 125Hz, 63Hz, −20dB); QZZCFM
- Playback gain adjustment (315Hz, 0dB); QZZCFM
- Overall frequency response, Overall gain adjustment
  Normal reference blank tape ; QZZCRA
  CrO₂ reference blank tape; QZZCRX
  Metal reference blank tape; QZZCRZ

• Adjustment Points


MAIN P.C.B.
(Lch)(Rch)
OVERALL FREQUENCY RESPONSE ADJ.
DECK2: VR303(Lch) {VR302(Rch)}
PLAYBACK GAIN ADJ.
DECK 1: VR3(Lch) {VR4(Rch)}
DECK 2: VR5(Lch) {VR6(Rch)}
TAPE SPEED ADJ.
DECK 2: VR902(X1), VR901(X2)
DECK 1: VR903(X1)
VR6
VR4
VR5
VR3
VR303
VR302
VR903
VR902
VR901
VR301
TP5
VR8
VR7
OVERALL GAIN ADJ.
DECK2: VR7(Lch) {VR8(Rch)}
ERASE CURRENT ADJ.
DECK 2 : VR301
IC901
MODE TEST POINT
(Soldered Surface)
TP5
ERASE CURRENT
ADJ. TEST POINT
(DECK 2)

HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8kHz, −20dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

Note: If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

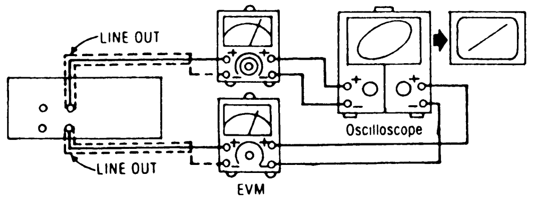


Fig. 1

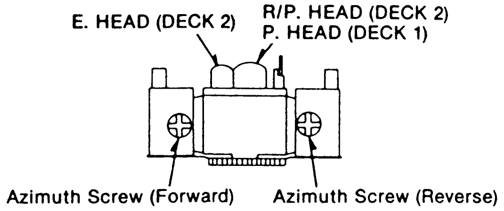


Fig. 2

TAPE SPEED ADJUSTMENT (DECK 1/2)

Normal speed

1. Shift the Tape-to-tape recording tape-speed selector to "X1" and press the synchro-start button.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1 = **VR903** and Deck 2 = **VR902** so that the output is within the standard value.

High speed

4. Shift the Tape-to-tape recording tape speed switch to "X2" and press the synchro-start button.
5. Playback the middle portion of the test tape (QZZCWAT).
6. Adjust Deck 2 = **VR901** so that the output is within the standard value.

Note: The Normal speed adjustment must be done before the High speed adjustment.

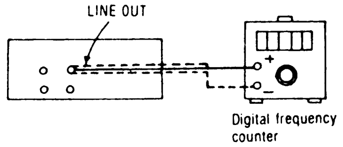


Fig. 3

(DECK 1) Standard value: 3000 ± 15 Hz [Normal (X1)], 6000 ± 600 Hz [High (X2), only confirmation]
(DECK 2) Standard value: 3000 ± 15 Hz [Normal (X1)], 6000 ± 30 Hz [High (X2)]

PLAYBACK GAIN ADJUSTMENT (DECK 1/2)

1. Playback the gain adjusted portion (315Hz, 0dB) of the test tape (QZZCFM).
2. Adjust Deck 1 = **VR3** (L-CH) [[**VR4** (R-CH)]] and Deck 2 = **VR5** (L-CH) [[**VR6** (R-CH)]] so that the output is within the standard value.

Standard value: 0.4V ± 0.5dB

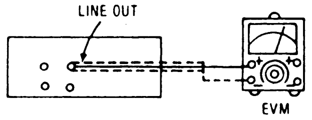


Fig. 4

PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

1. Playback the frequency response portion (315Hz, 12.5kHz~63Hz, −20dB) of the test tape (QZZCFM).
2. Assure that the frequency response is within the range shown in **Fig. 6** for both L-CH and R-CH.

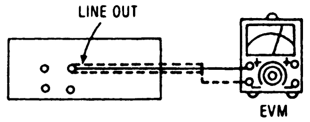


Fig. 5

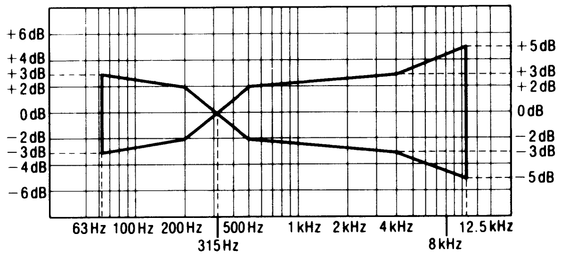


Fig. 6

ERASE CURRENT ADJUSTMENT (DECK 2)

1. Insert the Metal blank test tape (QZZCRZ) and set the unit to the Record Pause mode.
2. Adjust **VR301** so that the output between **TP3** and GND is within the standard value.

Standard value: 190 ± 5mA (Metal)...EVM Reading: 190 ± 5mV

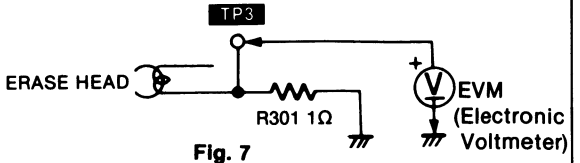


Fig. 7

OVERALL FREQUENCY RESPONSE (DECK 2)

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record Pause mode.
2. Apply a reference input signal (1kHz, −24dB) through an attenuator.
3. Attenuate the signal by 20dB and adjust the frequency from 50Hz~10kHz.
4. Record the frequency sweep.
5. Playback the recorded signal and assure that it is within the range shown in **Fig. 8** in comparison to the reference frequency (1kHz).
6. If it is not within the standard range, adjust **VR303** (L-CH) and **VR302** (R-CH) so that the frequency level is within the standard range.
   - Level up in high frequency range........Increase the bias current.
   - Level down in high frequency range...Decrease the bias current.
7. Repeat steps 2~6 above using the CrO_2 tape (QZZCRX) and the Metal tape (QZZCRZ) increasing the frequency range to 12.5kHz (50Hz~12.5kHz).
8. Assure that the level is within the range shown in **Fig. 9**.

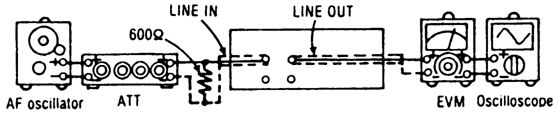


Fig. 10

Normal Overall frequency response chart (NR OUT)

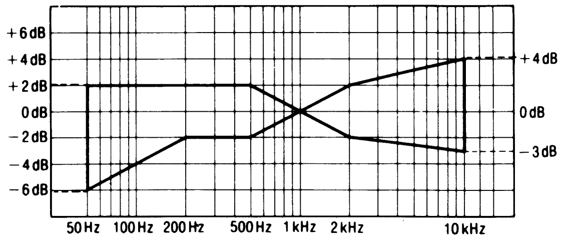


Fig. 8

CrO_2 Metal Overall frequency response chart (NR OUT)

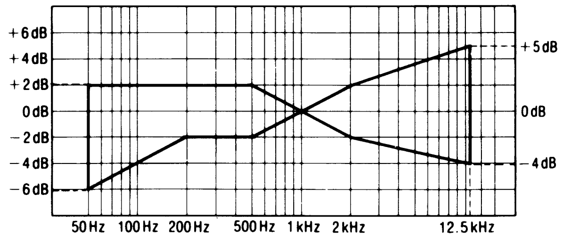


Fig. 9

OVERALL GAIN ADJUSTMENT (DECK 2)

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2. Apply a reference input signal (1kHz, −24dB). Attenuate the output so that its level becomes 0.4V.
3. Record this input signal.
4. Playback the signal recorded in step 3 above, and assure that the output is within the standard value.
5. If it is not within the standard value, adjust **VR7** (L-CH) and **VR8** (R-CH).
6. Repeat the step 2~5 above until the output is within the standard value.

Standard value: 0.4V ± 0.5dB

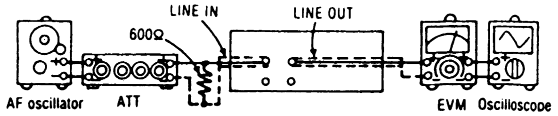
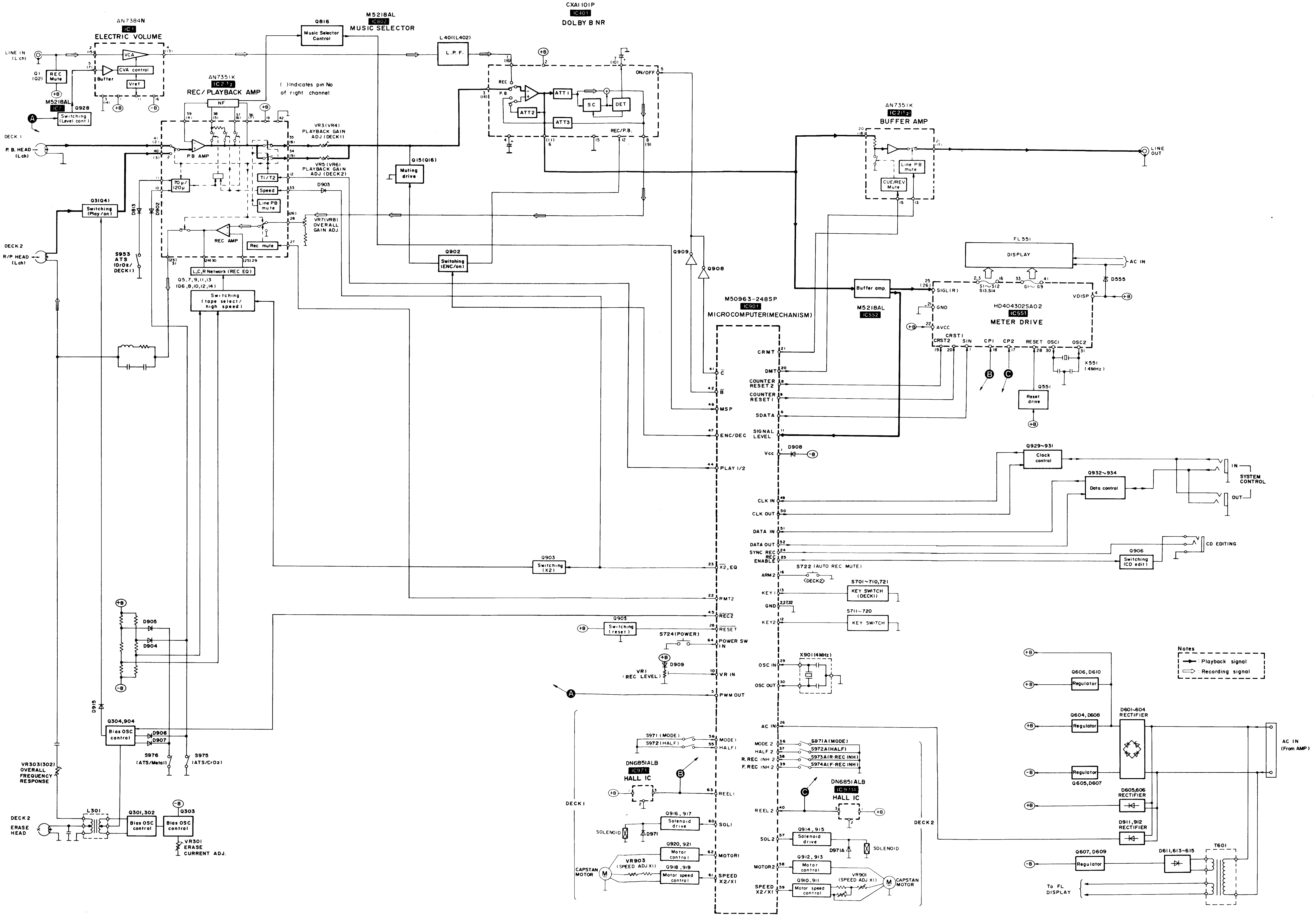
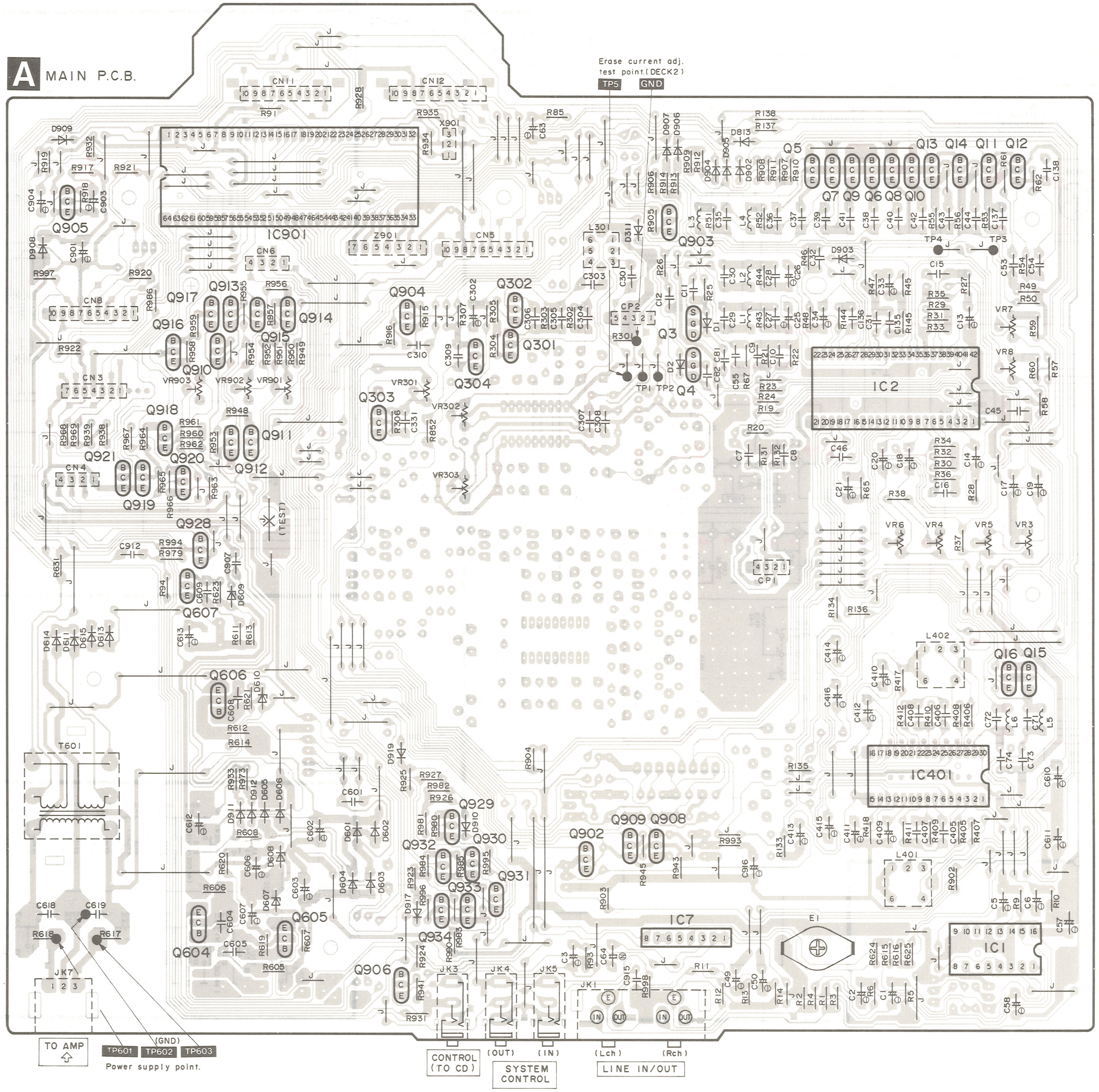


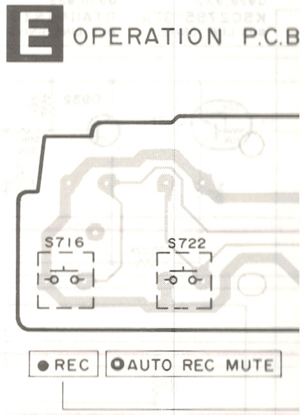
Fig. 11

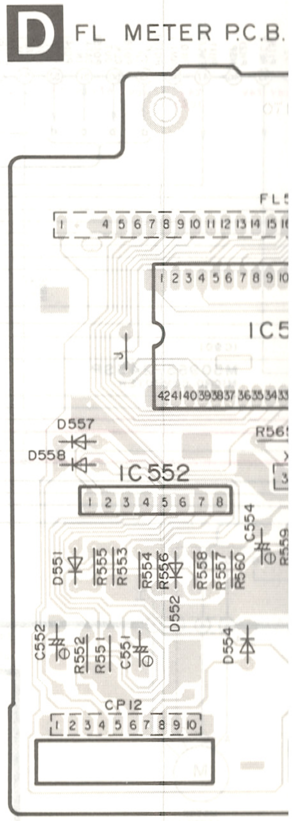
BLOCK DIAGRAM


AN7384N
IC1
ELECTRIC VOLUME
LINE IN (L ch)
Q1 (Q2)
REC Mute
VCA
CVA control
Buffer
Vref
M5218AL
IC7
Q928
Switching (Level cont.)
A
Q816
Music Selector Control
M5218AL
IC802
MUSIC SELECTOR
AN7351K
IC2 1/2
REC/PLAYBACK AMP
NF
( ) Indicates pin No of right channel
VR3 (VR4) PLAYBACK GAIN ADJ (DECK1)
VR5 (VR6) PLAYBACK GAIN ADJ (DECK2)
DECK 1
P. B. HEAD (L ch)
PB AMP
T1/T2
Speed
Line PB mute
D903
70μ/120μ
Q3 (Q4)
Switching (Play/on)
D813
D902
VR7 (VR8) OVERALL GAIN ADJ
REC AMP
Rec mute
DECK 2
R/P HEAD (L ch)
S953 ATS (CrO2/DECK1)
L,C,R Network (REC EQ)
Q5,7,9,11,13 (Q6,8,10,12,14)
Switching (tape select/high speed)
L401 (L402)
L.P.F.
CXA1101P
IC401
DOLBY B NR
REC
P.B
ATT1
ATT2
ATT3
SC
DET
ON/OFF
REC/P.B.
Q15 (Q16)
Muting drive
Q902
Switching (ENC/on)
Q909
Q908
AN7351K
IC2 1/2
BUFFER AMP
Line PB mute
CUE/REV Mute
LINE OUT
FL551
DISPLAY
AC IN
D555
Buffer amp.
M5218AL
IC552
HD404302SA02
IC551
METER DRIVE
SIGL (R)
GND
AVCC
VDISP
S1~S12 S13,S14
G1~G9
CRST1 CRST2
SIN
CP1
CP2
RESET
OSC1
OSC2
X551 (4MHz)
Q551
Reset drive
B
C
M50963-248SP
IC901
MICROCOMPUTER (MECHANISM)
CRMT
DMT
COUNTER RESET 2
COUNTER RESET 1
SDATA
SIGNAL LEVEL
C
B
MSP
ENC/DEC
Vcc
D908
PLAY 1/2
CLK IN
CLK OUT
DATA IN
DATA OUT
SYNC REC
REC ENABLE
ARM 2
KEY 1
GND
KEY 2
X2, EQ
RMT2
REC2
RESET
POWER SW IN
VR IN
PWM OUT
OSC IN
OSC OUT
AC IN
Q929~931
Clock control
Q932~934
Data control
IN
OUT
SYSTEM CONTROL
Q906
Switching (CD edit)
CD EDITING
S722 (AUTO REC MUTE)
(DECK2)
S701~710,721
KEY SWITCH (DECK1)
S711~720
KEY SWITCH
Q903
Switching (X2)
Q905
Switching (reset)
S724 (POWER)
D909
VR1 (REC LEVEL)
X901 (4MHz)
D905
D904
D915
Q304,904
Bias OSC control
D906
D907
S976 (ATS/Metal)
S975 (ATS/CrO2)
VR303 (302) OVERALL FREQUENCY RESPONSE
DECK 2 ERASE HEAD
L301
Q301,302
Bias OSC control
Q303
Bias OSC control
VR301 ERASE CURRENT ADJ.
S971 (MODE)
S972 (HALF)
MODE 1
HALF 1
DN6851ALB
IC971
HALL IC
REEL 1
DECK 1
Q916,917
Solenoid drive
SOL 1
SOLENOID
D971
Q920,921
Motor control
MOTOR 1
CAPSTAN MOTOR
VR903 (SPEED ADJ X1)
Q918,919
Motor speed control
SPEED X2/X1
MODE 2
HALF 2
R.REC INH 2
F.REC INH 2
S971A (MODE)
S972A (HALF)
S973A (R-REC INH)
S974A (F-REC INH)
DN6851ALB
IC971A
HALL IC
REEL 2
Q914,915
Solenoid drive
SOL 2
D971A
SOLENOID
Q912,913
Motor control
MOTOR 2
Q910,911
Motor speed control
VR901 (SPEED ADJ X1)
CAPSTAN MOTOR
SPEED X2/X1
DECK 2
Notes
Playback signal
Recording signal
Q606,D610
Regulator
Q604,D608
Regulator
D601~604 RECTIFIER
Regulator
Q605,D607
D605,606 RECTIFIER
D911,912 RECTIFIER
Q607,D609
Regulator
D611,613~615
T601
AC IN (From AMP)
To FL DISPLAY

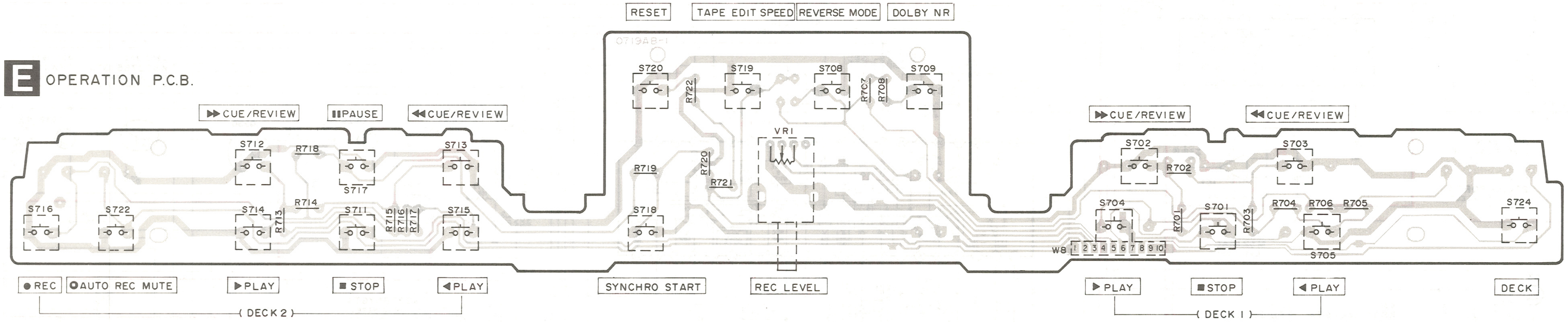
PRINTED CIRCUIT BOARDS


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
A MAIN P.C.B.
Erase current adj. test point.(DECK2)
TP5
GND
CN11
CN12
CN5
CN6
CN8
CN3
CN4
IC901
Z901
X901
IC2
IC401
IC7
IC1
CP1
CP2
L301
L401
L402
T601
E1
JK1
JK3
JK4
JK5
JK7
TP1
TP2
TP3
TP4
VR1
VR2
VR3
VR4
VR5
VR6
VR7
VR8
VR301
VR302
VR303
VR901
VR902
VR903
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q11
Q12
Q13
Q14
Q15
Q16
Q301
Q302
Q303
Q304
Q604
Q605
Q606
Q607
Q902
Q903
Q904
Q905
Q906
Q908
Q909
Q910
Q911
Q912
Q913
Q914
Q915
Q916
Q917
Q918
Q919
Q920
Q921
Q928
Q929
Q930
Q931
Q932
Q933
Q934
(TEST)
IN
OUT
TO AMP
TP601
(GND)
TP602
TP603
Power supply point.
CONTROL (TO CD)
(OUT)
(IN)
SYSTEM CONTROL
(Lch)
(Rch)
LINE IN/OUT

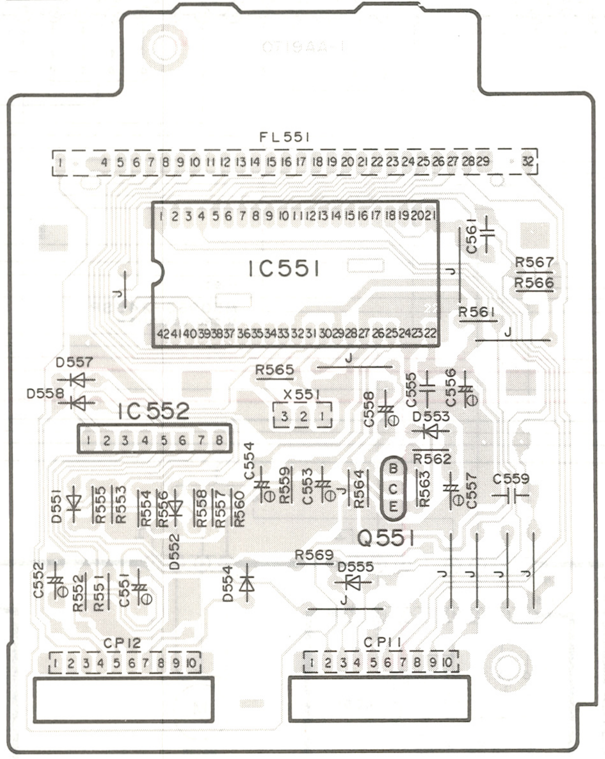

E OPERATION P.C.B
S716
S722
● REC
○ AUTO REC MUTE


D FL METER P.C.B.
IC5
IC552
CP12
D551
D552
D554
D557
D558
C552
C554
R551
R552
R553
R554
R556
R557
R558
R560
R561

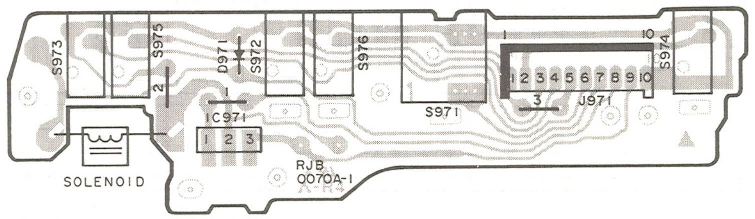
E OPERATION P.C.B.


RESET
TAPE EDIT SPEED
REVERSE MODE
DOLBY NR
▶▶CUE/REVIEW
❚❚PAUSE
◀◀CUE/REVIEW
S712
S713
S717
S716
S722
S714
S711
S715
S720
S719
S708
S709
VR1
R718
R714
R713
R715
R716
R717
R719
R720
R721
R722
R707
R708
S718
▶▶CUE/REVIEW
◀◀CUE/REVIEW
S702
S703
R702
S704
S701
R701
R703
R704
R706
R705
S705
S724
W8
● REC
○ AUTO REC MUTE
▶ PLAY
■ STOP
◀ PLAY
(DECK 2)
SYNCHRO START
REC LEVEL
▶ PLAY
■ STOP
◀ PLAY
(DECK 1)
DECK

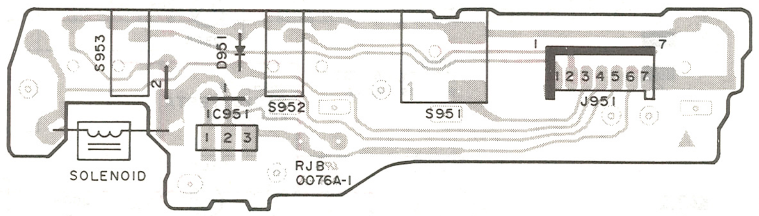
D FL METER P.C.B.

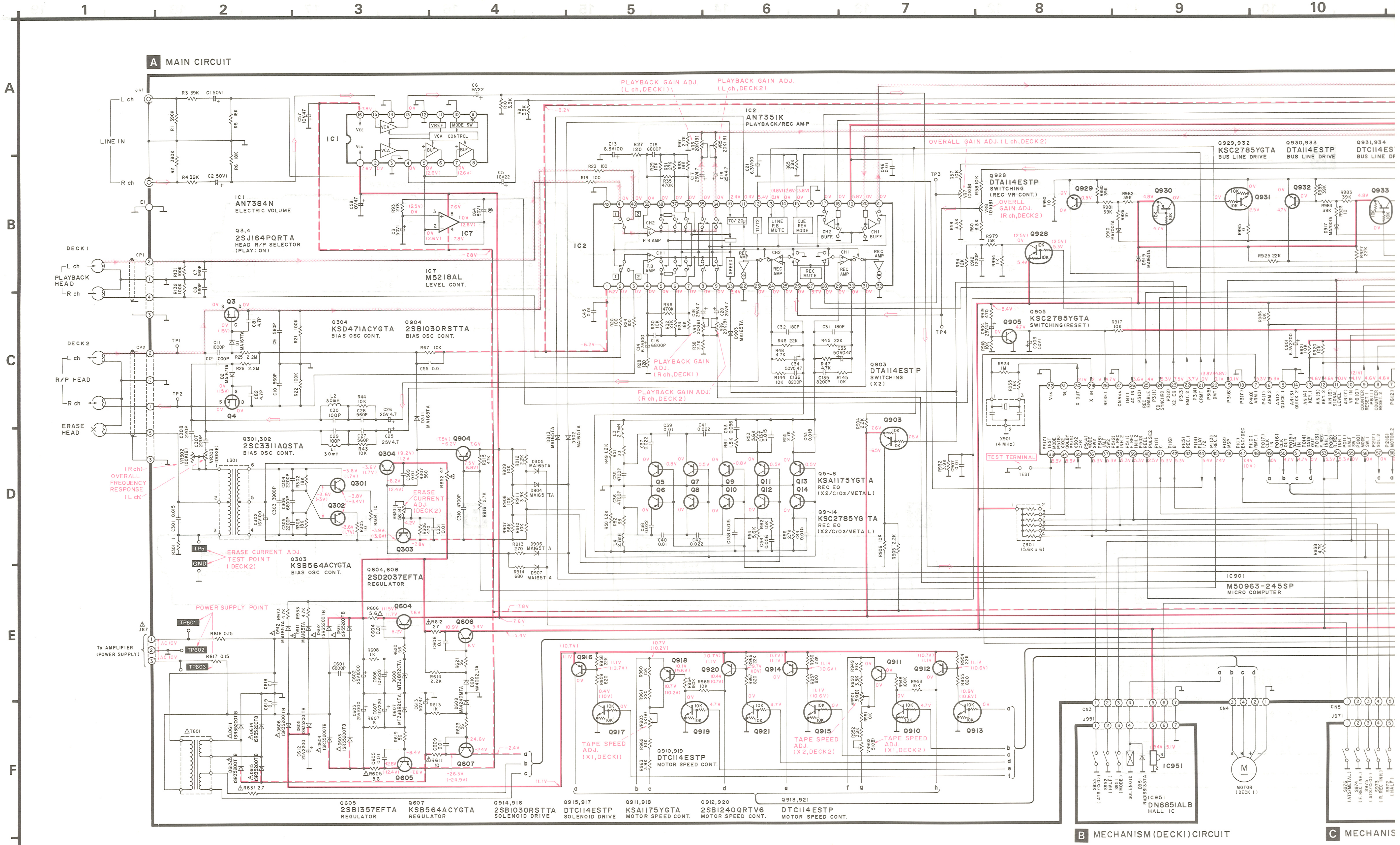

FL551
IC551
C561
R567
R566
R561
D557
D558
IC552
R565
X551
C558
C555
C556
D553
R562
C554
C559
C553
C557
R563
R564
D551
R555
R553
R554
R556
R558
R557
R560
D552
Q551
R569
D555
D554
C552
R552
R551
C551
CP12
CP11

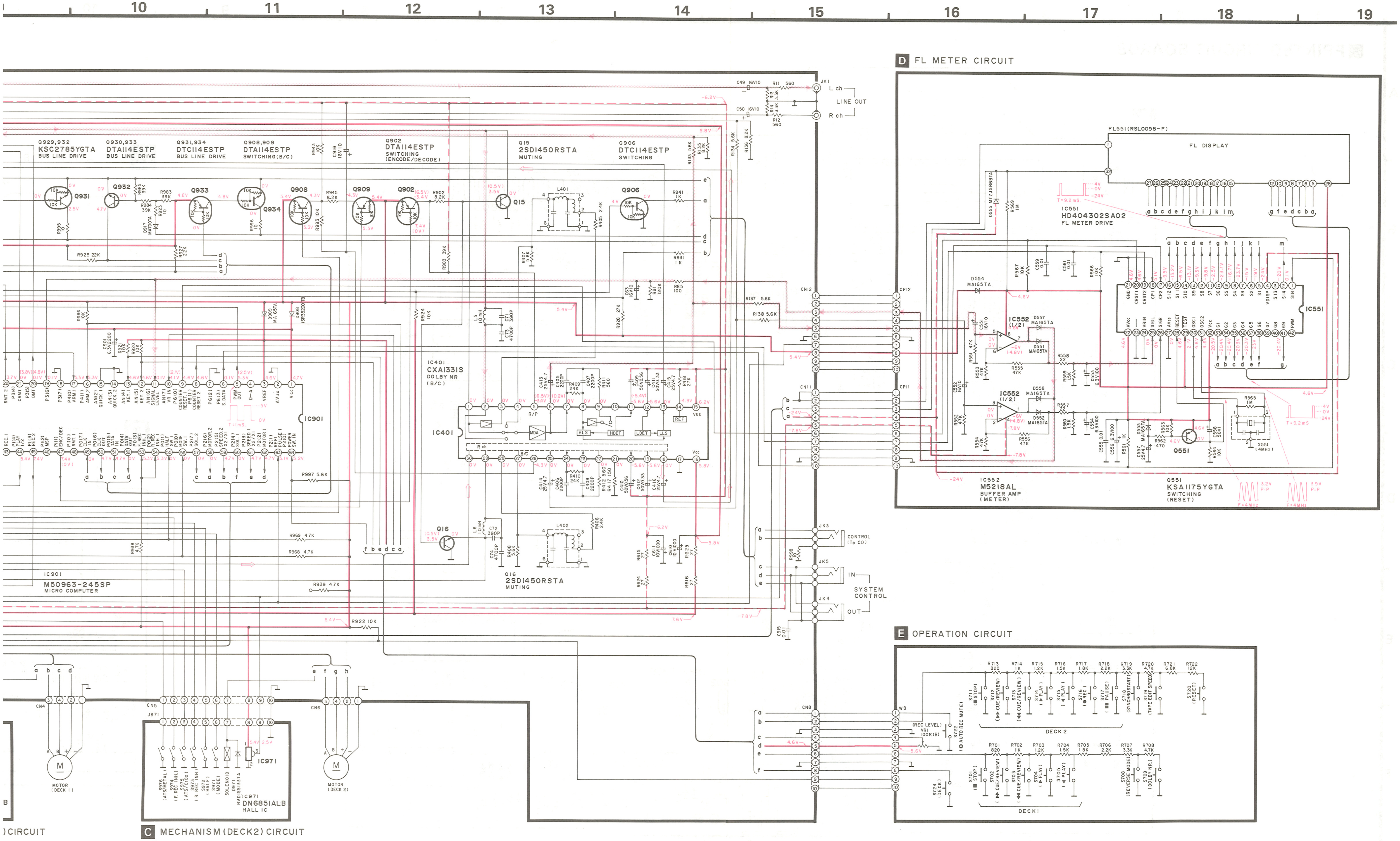
C MECHANISM (DECK 2) P.C.B.


S973
S975
D971
S972
S976
S974
S971
J971
IC971
SOLENOID
RJB
0070A-1

B MECHANISM (DECK 1) P.C.B.


S953
D951
IC951
S952
S951
J951
SOLENOID
RJB
0076A-1


A MAIN CIRCUIT
LINE IN
L ch
R ch
JK1
DECK 1
PLAYBACK HEAD
DECK 2
R/P HEAD
ERASE HEAD
IC1 AN7384N ELECTRIC VOLUME
Q3,4 2SJ164PQRTA HEAD R/P SELECTOR (PLAY: ON)
IC7 M5218AL LEVEL CONT.
IC2 AN7351K PLAYBACK/REC AMP
PLAYBACK GAIN ADJ. (L ch, DECK1)
PLAYBACK GAIN ADJ. (L ch, DECK2)
PLAYBACK GAIN ADJ. (R ch, DECK1)
PLAYBACK GAIN ADJ. (R ch, DECK2)
OVERALL GAIN ADJ. (L ch, DECK2)
OVERLL GAIN ADJ. (R ch, DECK2)
(R ch) OVERALL FREQUENCY RESPONSE (L ch)
Q304 KSD471ACYGTA BIAS OSC CONT.
Q904 2SB1030RSTTA BIAS OSC CONT.
Q301,302 2SC3311AQSTA BIAS OSC CONT.
Q303 KSB564ACYGTA BIAS OSC CONT.
ERASE CURRENT ADJ. (DECK2)
ERASE CURRENT ADJ. TEST POINT (DECK2)
TP5
GND
Q604,606 2SD2037EFTA REGULATOR
POWER SUPPLY POINT
TP601
TP602
TP603
To AMPLIFIER (POWER SUPPLY)
JK7
T601
Q5~8 KSA1175YGTA REC EQ (X2/CrO2/METAL)
Q9~14 KSC2785YGTA REC EQ (X2/CrO2/METAL)
Q903 DTA114ESTP SWITCHING (X2)
Q905 KSC2785YGTA SWITCHING (RESET)
Q928 DTA114ESTP SWITCHING (REC VR CONT.)
Q929,932 KSC2785YGTA BUS LINE DRIVE
Q930,933 DTA114ESTP BUS LINE DRIVE
Q931,934 DTC114ES BUS LINE DR
TP3
TP4
X901 (4 MHz)
TEST TERMINAL
TEST
Z901 (5.6K x 6)
IC901 M50963-245SP MICRO COMPUTER
TAPE SPEED ADJ. (X1, DECK1)
TAPE SPEED ADJ. (X2, DECK2)
TAPE SPEED ADJ. (X1, DECK2)
Q910,919 DTC114ESTP MOTOR SPEED CONT.
Q605 2SB1357EFTA REGULATOR
Q607 KSB564ACYGTA REGULATOR
Q914,916 2SB1030RSTTA SOLENOID DRIVE
Q915,917 DTC114ESTP SOLENOID DRIVE
Q911,918 KSA1175YGTA MOTOR SPEED CONT.
Q912,920 2SB1240QRTV6 MOTOR SPEED CONT.
Q913,921 DTC114ESTP MOTOR SPEED CONT.
CN3
J951
CN4
CN5
J971
IC951
IC951 DN6851ALB HALL IC
MOTOR (DECK 1)
SOLENOID
B MECHANISM(DECK1) CIRCUIT
C MECHANIS


10
11
12
13
14
15
16
17
18
19
D FL METER CIRCUIT
E OPERATION CIRCUIT
)CIRCUIT
C MECHANISM (DECK2) CIRCUIT
Q929,932 KSC2785YGTA BUS LINE DRIVE
Q930,933 DTA114ESTP BUS LINE DRIVE
Q931,934 DTC114ESTP BUS LINE DRIVE
Q908,909 DTA114ESTP SWITCHING(B/C)
Q902 DTA114ESTP SWITCHING (ENCODE/DECODE)
Q15 2SD1450RSTA MUTING
Q906 DTC114ESTP SWITCHING
Q16 2SD1450RSTA MUTING
IC401 CXA1331S DOLBY NR (B/C)
IC901 M50963-245SP MICRO COMPUTER
IC901
IC401
JK1 L ch LINE OUT R ch
JK3 CONTROL (To CD)
JK5 IN SYSTEM CONTROL
JK4 OUT
CN12
CN11
CN8
CN4
CN5
J971
CN6
CP12
CP11
W8
FL551(RSL0098-F) FL DISPLAY
IC551 HD404302SA02 FL METER DRIVE
IC551
IC552 (1/2)
IC552 M5218AL BUFFER AMP (METER)
Q551 KSA1175YGTA SWITCHING (RESET)
X551 (4MHz)
T:9.2mS
T=1mS
F:4MHz
3.2V P-P
3.9V P-P
MOTOR (DECK 1)
MOTOR (DECK 2)
IC971 DN6851ALB HALL IC
IC971
S976 (ATS(METAL))
S974 (F.REC INH.)
S975 (ATS/CrO2)
S973 (R.REC INH.)
S972 (HALF)
S971 (MODE)
SOLENOID
D971 RVD1SS133TA
S711 (■STOP)
S712 (▶▶CUE/REVIEW)
S713 (◀◀CUE/REVIEW)
S714 (▷PLAY)
S715 (◁PLAY)
S716 (●REC)
S717 (■■PAUSE)
S718 (SYNCHRO START)
S719 (TAPE EDIT SPEED)
S720 (RESET)
DECK 2
S722 (○AUTO REC MUTE)
VR1 100K(B) (REC LEVEL)
S724 (DECK)
S701 (■STOP)
S702 (▶▶CUE/REVIEW)
S703 (◀◀CUE/REVIEW)
S704 (▷PLAY)
S705 (◁PLAY)
S708 (REVERSE MODE)
S709 (DOLBY NR)
DECK 1
R713 820
R714 1K
R715 1.2K
R716 1.5K
R717 1.8K
R718 2.2K
R719 3.3K
R720 4.7K
R721 6.8K
R722 12K
R701 820
R702 1K
R703 1.2K
R704 1.5K
R705 1.8K
R706 2.2K
R707 3.3K
R708 4.7K
L401
L402
R922 10K
R997 5.6K
R969 4.7K
R968 4.7K
R939 4.7K

■ SCHEMATIC DIAGRAM (Parts list on pages 28~31.)

(This schematic diagram may be modified at any time with development of new technology.)

Notes:

- S701: DECK 1 Stop switch (■ STOP).
- S702: DECK 1 Fast-forward switch (▶▶).
- S703: DECK 1 Rewind switch (◀◀).
- S704: DECK 1 Forward-side playback switch (▷ PLAY).
- S705: DECK 1 Reverse-side playback switch (◁ PLAY).
- S708: Reverse mode switch (REVERSE MODE; ⇄ , ⊂⊃ , ∞).
- S709: Dolby noise-reduction selector switch (Dolby NR; B, C).
- S711: DECK 2 Stop switch (■ STOP).
- S712: DECK 2 Fast-forward switch (▶▶).
- S713: DECK 2 Rewind switch (◀◀).
- S714: DECK 2 Forward-side playback switch (▷ PLAY).
- S715: DECK 2 Reverse-side playback switch (◁ PLAY).
- S716: DECK 2 Record switch (● REC).
- S717: DECK 2 Pause switch (▮▮ PAUSE).
- S718: Synchro-start switch (SYNCHRO START).
- S719: Tape-to-tape recording tape-speed selector switch (TAPE EDIT SPEED).
- S720: DECK 2 Tape counter reset switch (RESET).
- S722: DECK 2 Automatic-record-muting switch (◘ AUTO REC MUTE).
- S724: DECK ON/OFF switch in "**on**" position (DECK).
- S951: DECK 1 Mode switch in "**off**" position.
- S952: DECK 1 Cassette half detection switch in "**off**" position.
- S953: DECK 1 ATS (CrO_2) switch in "**off**" position.
- S971: DECK 2 Mode switch in "**off**" position.
- S972: DECK 2 Cassette half detection switch in "**off**" position.
- S973: DECK 2 Rev. Rec Inhibit switch in "**off**" position.
- S974: DECK 2 For. Rec Inhibit switch in "**off**" position.
- S975: DECK 2 ATS (CrO_2) switch in "**off**" position.
- S976: DECK 2 ATS (Metal) switch in "**off**" position.

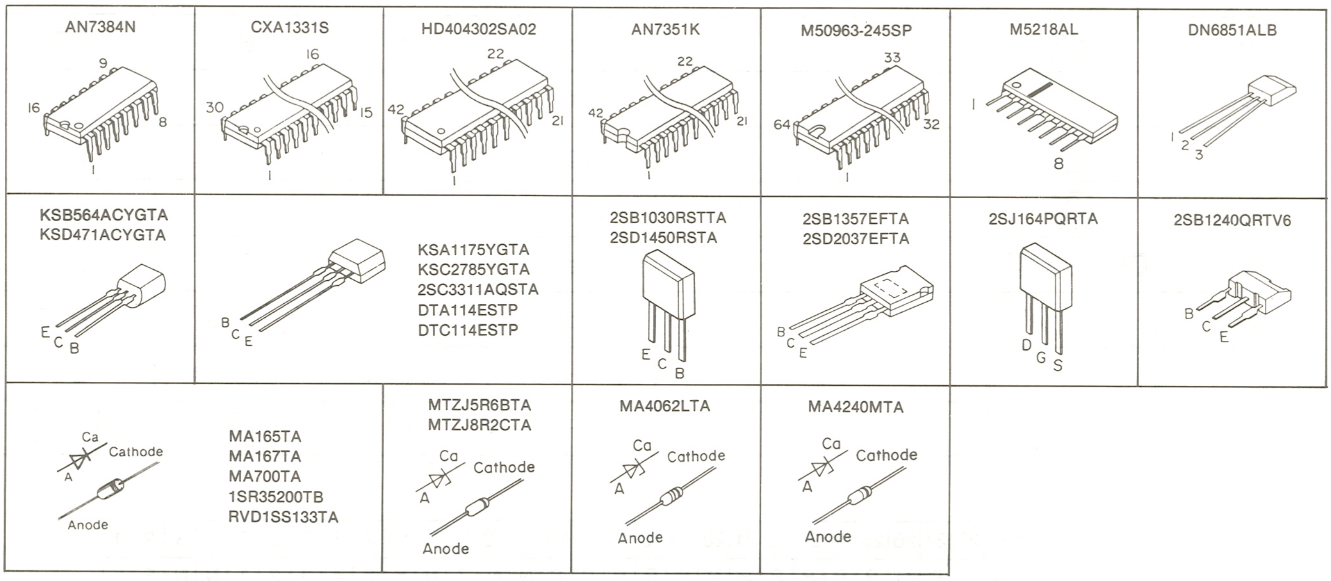
- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
  1K=1,000 (Ω), 1M=1,000k (Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode of deck 2 with volume control at minimum position otherwise specified.
  < >........Voltage values at playback mode of deck 1.
  ( )..........Voltage values at record mode.
  For measurement us EVM.
- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
- (▬▬<+B>▬▬) indicates +B (bias).
- (▬▬<−B>▬▬) indicates −B (bias).
- (⇨) indicates the flow of the playback signal.
- (⇨) indicates the flow of the record signal.
- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Part No.	Supply Part No.
IC7, 552	M5218AL	M5218L

∗Caution!

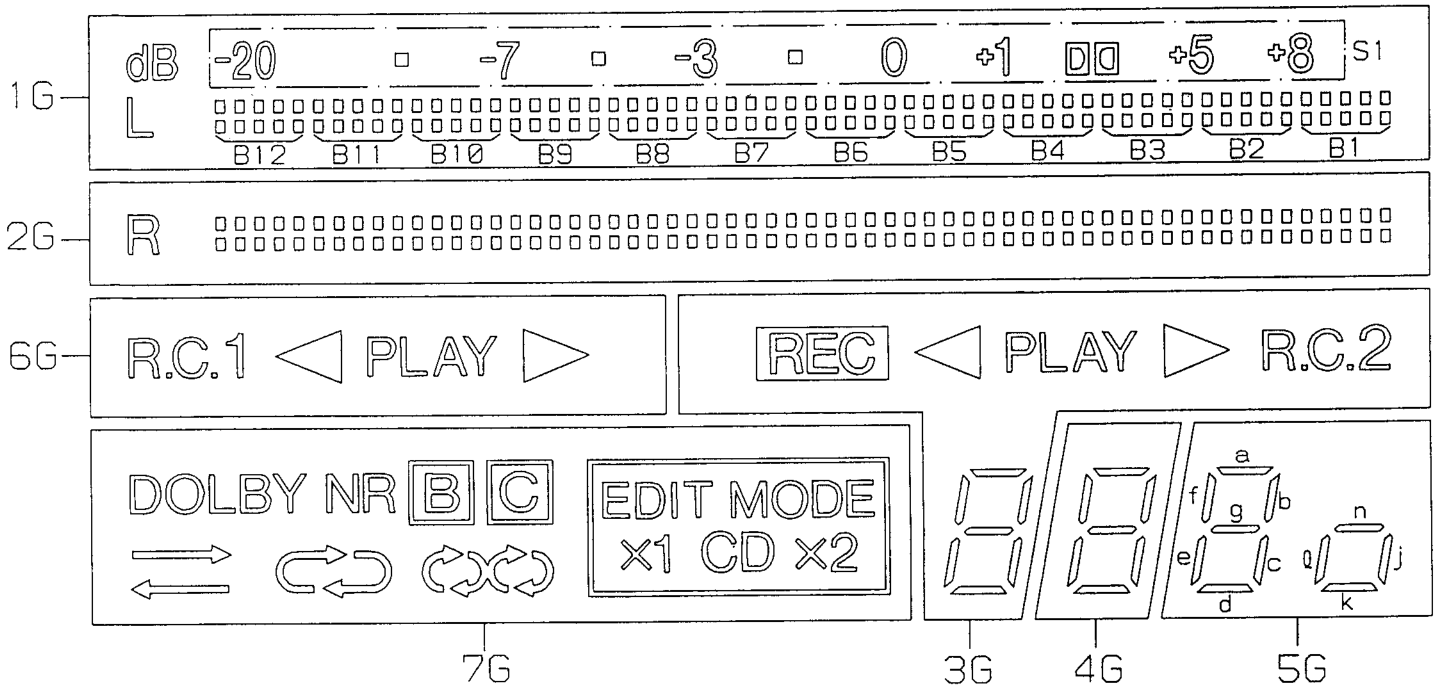
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
∗ Cover the parts boxes made of plastics with aluminum foil.
∗ Ground the soldering iron.
∗ Put a conductive mat on the work table.
∗ Do not touch the legs of IC or LSI with the fingers directly.

■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES


AN7384N
9
16
8
1
CXA1331S
16
30
15
1
HD404302SA02
22
42
21
1
AN7351K
22
42
21
1
M50963-245SP
33
64
32
1
M5218AL
1
8
DN6851ALB
1
2
3
KSB564ACYGTA
KSD471ACYGTA
E
C
B
KSA1175YGTA
KSC2785YGTA
2SC3311AQSTA
DTA114ESTP
DTC114ESTP
B
C
E
2SB1030RSTTA
2SD1450RSTA
E
C
B
2SB1357EFTA
2SD2037EFTA
B
C
E
2SJ164PQRTA
D
G
S
2SB1240QRTV6
B
C
E
Ca
Cathode
A
Anode
MA165TA
MA167TA
MA700TA
1SR35200TB
RVD1SS133TA
MTZJ5R6BTA
MTZJ8R2CTA
Ca
Cathode
A
Anode
MA4062LTA
Ca
Cathode
A
Anode
MA4240MTA
Ca
Cathode
A
Anode

■ INTERNAL CONNECTION OF FL

• Grid connection diagram


1G
2G
6G
dB
-20
-7
-3
0
+1
+5
+8
S1
L
B12
B11
B10
B9
B8
B7
B6
B5
B4
B3
B2
B1
R
R.C.1
PLAY
REC
PLAY
R.C.2
DOLBY NR
B
C
EDIT MODE
×1 CD ×2
a
f
g
b
n
e
c
l
j
d
k
7G
3G
4G
5G

• Anode connection table

	7G	6G	5G	4G	3G	2G	1G
P1	⟲⟳	▷	n	–	▷	B1	B1
P2	⟲	PLAY	j	–	PLAY	B2	B2
P3	⇄	◁	l	–	◁	B3	B3
P4	EDIT MODE	R.C.1	k	–	R.C.2	B4	B4
P5	CD	–	–	–	REC	B5	B5
P6	×2	–	a	a	a	B6	B6
P7	×1	–	b	b	b	B7	B7
P8	–	–	f	f	f	B8	B8
P9	B	–	g	g	g	B9	B9
P10	C	–	c	c	c	B10	B10
P11	DOLBY NR	–	e	e	e	B11	B11
P12	–	–	d	d	d	B12	B12
P13	–	–	–	–	–	–	S1
P14	–	–	–	–	–	R	dB L

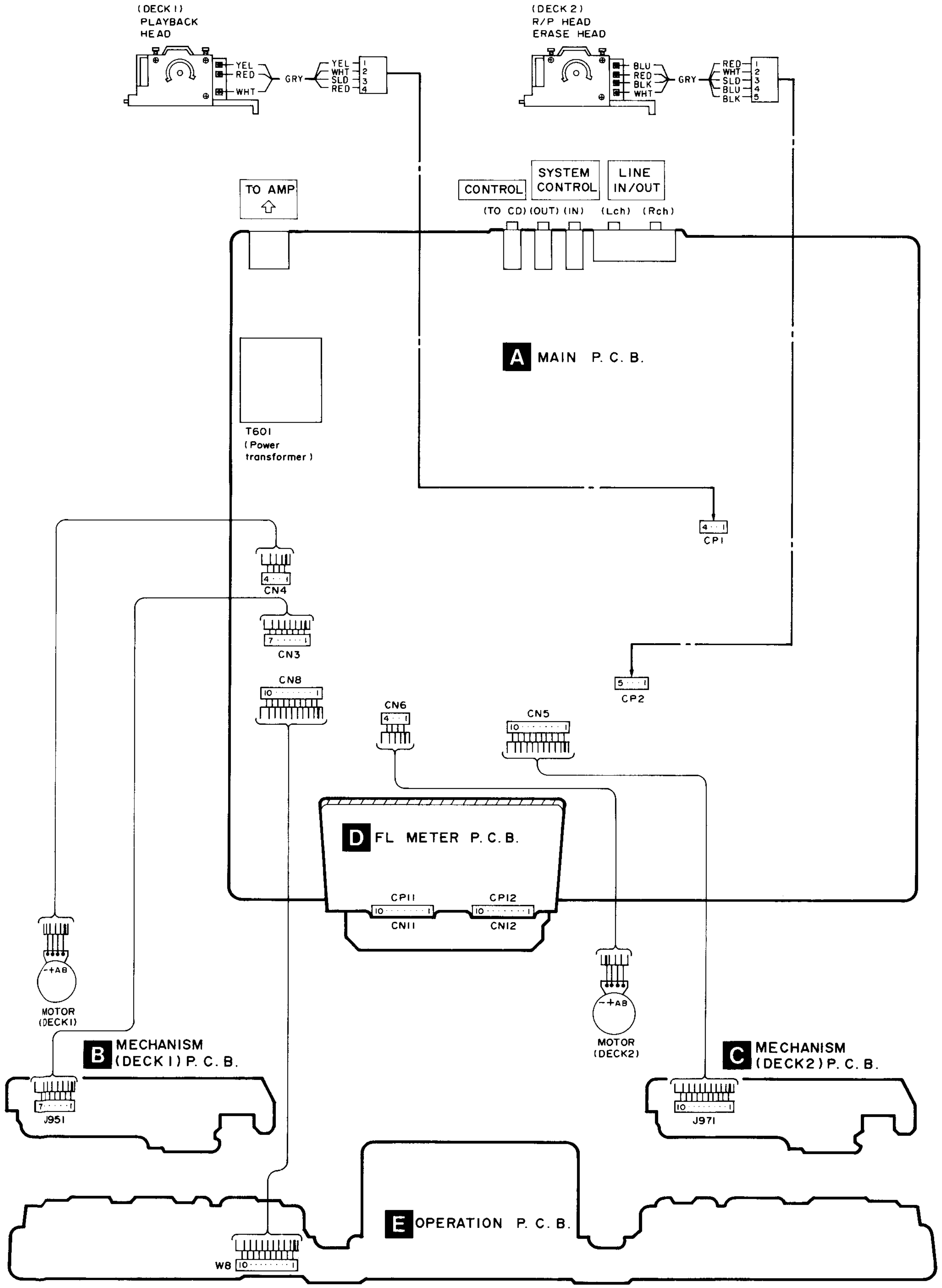
• Pin connection

PIN NO.	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	NP	NC	P14	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	P13	NC	NC	7G	NC	6G	5G	4G	3G	2G	1G	NC	NP	F1	F1

Note

1) F1, F2..........................Filament
2) NP..............................No pin
3) NC..............................No connection
4) 1G~7G........................Grid

WIRING CONNECTION DIAGRAM


(DECK 1)
PLAYBACK
HEAD
YEL
RED
WHT
GRY
YEL
WHT
SLD
RED
(DECK 2)
R/P HEAD
ERASE HEAD
BLU
RED
BLK
WHT
GRY
RED
WHT
SLD
BLU
BLK
TO AMP
CONTROL
SYSTEM
CONTROL
LINE
IN/OUT
(TO CD) (OUT) (IN)
(Lch) (Rch)
A MAIN P.C.B.
T601
(Power
transformer)
CP1
CN4
CN3
CN8
CN6
CN5
CP2
D FL METER P.C.B.
CP11
CP12
CN11
CN12
MOTOR
(DECK1)
MOTOR
(DECK2)
B MECHANISM
(DECK 1) P.C.B.
C MECHANISM
(DECK2) P.C.B.
J951
J971
E OPERATION P.C.B.
W8

TERMINAL FUNCTION OF IC'S

- **IC901 (M50963-245SP): MICROCOMPUTER (This microcomputer is used for mechanical operation.)**

Pin No.	Mark	I/O Division	Function
1	V_{CC}	I	Power supply terminal
2	AV_{SS} (GND)	—	GND terminal
3	V_{REF}	I	Reference voltage terminal
4	D-A	—	Not used, open
5	PWM	O	Pulse width modulated signal
6	P6 (3)	O	Serial signal for FL display
7	P6 (2)	—	Not used, open
8	P6 (1)	O	Counter reset signal of deck 2 ("RESET": "L", others: "H")
9	P6 (0)	O	Counter reset signal of deck 1 ("RESET": "L", others: "H")
10	AN (7)	I	Variable voltage level signal of rec. level volume
11	AN (6)	I	Peak voltage terminal of rec. signal
12	AN (5)	I	Operation key switches Deck 2: STOP, F.F./REW, PLAY, REC, PAUSE, SYNCHRO START, X1/X2, counter reset
13	AN (4)	I	Operation key switches Deck 1: STOP, F.F./REW, F. PLAY, R. PLAY, Reverse-mode, Dolby B/C, Meter-range counter reset
14	AN (3)	—	Not used
15	AN (2)	—	Not used
16	P4 (1)	I	"AUTO REC MUTE" key switch signal of deck 2 ("ON": "L", "OFF": "H")
17	P4 (0)	I	Not used, open
18	P3 (7)	—	Not used
19	P3 (6)	—	Not used
20	P3 (5)	O	Mute signal of line out (Mute "ON": "H", Mute "OFF": "L")
21	P3 (4)	O	Mute signal with Cue/Review action (Mute "ON": "H", Mute "OFF": "L")
22	P3 (3)	O	Rec. mute signal of deck 2 (Mute "ON": "H", Mute "OFF": "L")
23	P3 (2)	O	Playback equalizer select signal with tape edit of deck 1 (Normal: "H", X2 edit: "L")
24	P3 (1)	I	CD Synchro rec. signal (CD STOP: "H", CD PLAY: "L")
25	P3 (0)	O	CD Synchro rec. possible/impossible signal (possible: "L", impossible: "H")
26	INTI	I	"AC POWER OFF" det. terminal
27	CNV_{SS}	—	GND terminal
28	RESET	I	Reset signal ("L"=RESET, Normal: "H")
29	X_{IN}	I	Clock OSC terminal
30	X_{OUT}	O	
31	ϕ	—	Not used, open
32	V_{SS}	—	GND terminal
33	P5 (7)	I	Test terminal (Normal="H")
34	P5 (6)	I	Model select (Normal: "H")
35	P5 (5)	I	Model select (Normal: "L")
36	P5 (4)	I	Mechanism mode switch ("ON": "L", "OFF": "H")
37	P5 (3)	I	Cassette half det. switch ("ON": "L", "OFF": "H")
38	P5 (2)	I	Reverse rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
39	P5 (1)	I	Forward rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
40	P5 (0)	I	Reel rotation pulse signal of deck 2
41	P1 (7)	O	Dolby C "ON/OFF" select signal ("ON": "L", "OFF": "H")
42	P1 (6)	O	Dolby B "ON/OFF" select signal ("ON": "L", "OFF": "H")
43	P1 (5)	—	Not used, open
44	P1 (4)	O	Playback amp. select signal (Deck 2-P.B: "L", others: "H")
45	P1 (3)	O	Bias OSC "ON/OFF" select signal ("ON": "L", "OFF": "H")
46	P1 (2)	—	Not used, open

Pin No.	Mark	I/O Division	Function
47	P1 (1)	O	Dolby circuit encord/decord select signal (encord: "L", decord: "H")
48	P1 (0)	—	Not used, open
49	P0 (7)	I	Bus clock signal
50	P0 (6)	O	
51	P0 (5)	I	Bus data signal
52	P0 (4)	O	
53	P0 (3)	I	Forward rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
54	P0 (2)	I	Reverse rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
55	P0 (1)	I	Cassette-half det. switch of deck 1 ("ON": "L", "OFF": "H")
56	P0 (0)	I	Mechanism mode-switch of deck 1 ("ON": "L", "OFF": "H")
57	P2 (7)	O	Mechanism plunger "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")

Pin No.	Mark	I/O Division	Function
58	P2 (6)	O	Mechanism motor "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")
59	P2 (5)	O	Mechanism motor speed select signal of deck 2 ("X1": "H", "X2": "L")
60	P2 (4)	O	Mechanism plunger "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
61	P2 (3)	O	Mechanism motor speed select signal of deck 1 ("X1": "H", "X2": "L")
62	P2 (2)	O	Mechanism motor "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
63	P2 (1)	I	Mechanism reel rotation pulse signal of deck 1
64	P2 (0)	I	Power switch ("ON": "L", "OFF": "H")

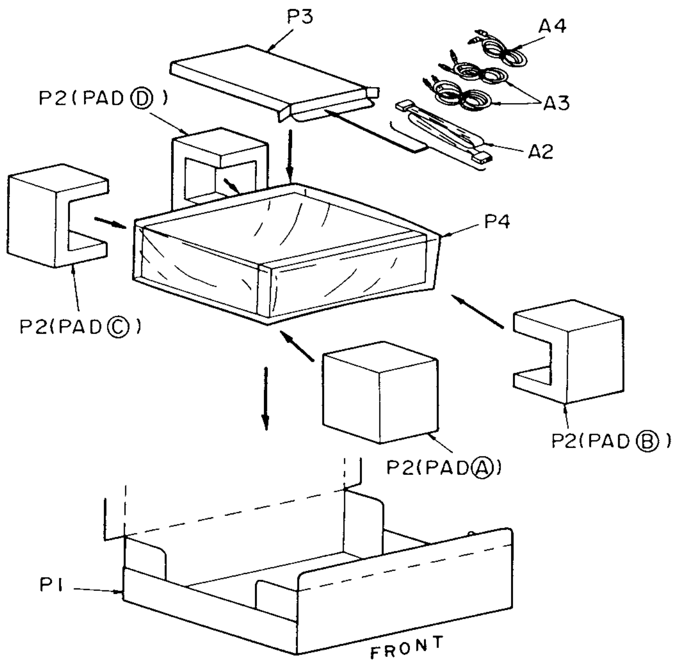
• IC551 (HD404302SA02): MICROCOMPUTER (This microcomputer is used for FL meter operation.)

Pin No.	Mark	I/O Division	Function
1	SIN	I	Serial data signal
2 • 5 ~ 16	S1 ~ S12 • S14	O	Segment signal for FL display
3	S13	—	Not used, open
4	V disp	I	Pull down power supply terminal ($-V_{CC}$)
17	CP2	I	Peel pulse signal of deck 2
18	CP1		
19	CRST2	I	Tape counter reset terminal of deck 2
20	CRST1	I	Tape counter reset terminal of deck 1
21	GND	—	GND terminal
22	AVCC	I	Power supply terminal

Pin No.	Mark	I/O Division	Function
23	—	—	——
24	VRIN	—	Rec level control signal
25	SIGL	I	Lch level signal
26	SIGR	I	Rch level signal
27	AVSS	—	GND terminal
28	RESET	I	Reset terminal ("RESET": "H")
29	$\overline{\text{TEST}}$	I	Test terminal
30	OSC1	O	Clock OSC terminal (4 MHz)
31	OSC2	I	
32	VCC	I	Power supply terminal
33 ~ 38 • 41	G1 ~ G6 • G9	O	Grid signal for FL display
39 • 41	G7 • G8	—	Not used, open
42	PWM	—	Not used, open

■ PACKING

Note:
This packing not illustrated Ref. No. A1 (A1-1, A1-2, A1-3).
Refer to the packing on page 38 of the service manual for Model No. SU-X302, Order No. AD9103050C8



<PAD Ⓐ Ⓑ Ⓒ Ⓓ Part No.: RPN0383-1>

■ REPLACEMENT PARTS LIST

Notes : • Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	AN7384N	ELECTRIC VOLUME	
IC2	AN7351K	PLAYBACK/REC AMP	
IC7	M5218L	REC LEVEL CONTROL	
IC401	CXA1331S	DOLBY B/C NR	
IC551	HD404302SA02	MICROCOMPUTER; FL METER	
IC552	M5218L	BUFFER AMP	
IC901	M50963-245SP	MICROCOMPUTER; MECHANICAL	
IC951	DN6851ALB	HALL (DECK1)	
IC971	DN6851ALB	HALL (DECK2)	
		TRANSISTOR(S)	
Q3, 4	2SJ164PQRTA	TRANSISTOR	
Q5-8	KSA1175YGTA	TRANSISTOR	
Q9-14	KSC2785YGTA	TRANSISTOR	
Q15, 16	2SD1450RSTA	TRANSISTOR	
Q301, 302	2SC3311A-Q	TRANSISTOR	
Q303	KSB564ACYGTA	TRANSISTOR	
Q304	KSD471ACYGTA	TRANSISTOR	
Q551	KSA1175YGTA	TRANSISTOR	
Q604	2SD2037EFTA	TRANSISTOR	
Q605	2SB1357EFTA	TRANSISTOR	
Q606	2SD2037EFTA	TRANSISTOR	
Q607	KSB564ACYGTA	TRANSISTOR	
Q902, 903	DTA114ESTP	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q904	2SB1030QTA	TRANSISTOR	
Q905	KSC2785YGTA	TRANSISTOR	
Q906	DTC114ESTP	TRANSISTOR	
Q908, 909	DTA114ESTP	TRANSISTOR	
Q910	DTC114ESTP	TRANSISTOR	
Q911	KSA1175YGTA	TRANSISTOR	
Q912	2SB1240-P	TRANSISTOR	
Q913	DTC114ESTP	TRANSISTOR	
Q914	2SB1030QTA	TRANSISTOR	
Q915	DTC114ESTP	TRANSISTOR	
Q916	2SB1030QTA	TRANSISTOR	
Q917	DTC114ESTP	TRANSISTOR	
Q918	KSA1175YGTA	TRANSISTOR	
Q919	DTC114ESTP	TRANSISTOR	
Q920	2SB1240-P	TRANSISTOR	
Q921	DTC114ESTP	TRANSISTOR	
Q928	DTA114ESTP	TRANSISTOR	
Q929	KSC2785YGTA	TRANSISTOR	
Q930	DTA114ESTP	TRANSISTOR	
Q931	DTC114ESTP	TRANSISTOR	
Q932	KSC2785YGTA	TRANSISTOR	
Q933	DTA114ESTP	TRANSISTOR	
Q934	DTC114ESTP	TRANSISTOR	
		DIODE(S)	
D1, 2	MA167	DIODE	
D311	MA165	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D551-554	MA165	DIODE	
D555	MTZJ5R6BTA	DIODE	
D557, 558	MA165	DIODE	
D601-606	1SR35200TB	DIODE	⚠
D607, 608	MTZJ8R2CTA	DIODE	
D609	MA4240H	DIODE	
D610	MA4062	DIODE	
D611	1SR35200TB	DIODE	⚠
D613-615	1SR35200TB	DIODE	⚠
D813	MA165	DIODE	
D902-907	MA165	DIODE	
D908	1SR35200TB	DIODE	
D909	MA165	DIODE	
D910	MA700TA	DIODE	
D911, 912	MA165	DIODE	⚠
D917	MA700TA	DIODE	
D919	MA165	DIODE	
D951	RVD1SS133TA	DIODE (DECK1)	
D971	RVD1SS133TA	DIODE (DECK2)	
		VARIABLE RESISTOR(S)	
VR1	EVJ02FF01B15	REC. LEVEL CONTROL	
VR3-6	EVNDXAA00B24	PLAYBACK GAIN ADJ.	
VR7, 8	EVNDXAA00B14	OVERALL GAIN ADJ.	
VR301	EVNDXAA00B53	ERASE CURRENT ADJ.	
VR302, 303	EVNDXAA00B15	OVERALL FREQ. ADJ.	
VR901-903	EVNDXAA00B53	TAPE SPEED ADJ.	
		COMPONENT COMBINATION(S)	
Z901	EXBF7E562JYV	COMBINATION PART (5.6kX6)	
		COIL(S)	
L1, 2	SLQX303-1KT	COIL	
L3, 4	SLQX272-1YT	COIL	
L5, 6	RLQB103JT-Y	COIL	
L301	SL09B4-K	COIL	
L401, 402	QLM9Z10K	COIL	
		TRANSFORMER(S)	
T601	RTP1H4G001	POWER TRANSFORMER	⚠
		OSCILLATOR(S)	
X551	EF0GC4004A4	CERAMIC FILTER (4MHz)	
X901	EF0GC4004A4	CERAMIC FILTER (4MHz)	
		DISPLAY TUBE	

Ref. No.	Part No.	Part Name & Description	Remarks
FL551	RSL0098-F	DISPLAY TUBE	
		SWITCH(ES)	
S701	EVQ21405R	STOP (DECK1)	
S702	EVQ21405R	F. F. (DECK1)	
S703	EVQ21405R	REW. (DECK1)	
S704	EVQ21405R	F. PLAYBACK (DECK1)	
S705	EVQ21405R	R. PLAYBACK (DECK1)	
S708	EVQ21405R	REVERSE MODE	
S709	EVQ21405R	DOLBY NR	
S711	EVQ21405R	STOP (DECK2)	
S712	EVQ21405R	F. F. (DECK2)	
S713	EVQ21405R	REW. (DECK2)	
S714	EVQ21405R	F. PLAYBACK (DECK2)	
S715	EVQ21405R	R. PLAYBACK (DECK2)	
S716	EVQ21405R	REC (DECK2)	
S717	EVQ21405R	PAUSE (DECK2)	
S718	EVQ21405R	SYNCHRO START	
S719	EVQ21405R	TAPE EDIT SPEED (X1/X2)	
S720	EVQ21405R	COUNTER RESET (DECK2)	
S722	EVQ21405R	AUTO REC MUTE (DECK2)	
S724	EVQ21405R	DECK (POWER ON/OFF)	
S951	RSH1A89ZB-U	MODE (DECK1)	
S952	RSH1A90YB-U	HALF (DECK1)	
S953	RSH1A90YB-U	ATS (DECK1)	
S971	RSH1A89ZB-U	MODE (DECK2)	
S972	RSH1A90YB-U	HALF (DECK2)	
S973	RSH1A90YB-U	R. REC INH. (DECK2)	
S974	RSH1A90YB-U	F. REC INH. (DECK2)	
S975	RSH1A90YB-U	ATS (DECK2)	
S976	RSH1A90YB-U	ATS (DECK2)	
		CONNECTOR(S) AND SOCKET(S)	
CN3	RJS7T4ZA	CONNECTOR (7P)	
CN4	RJS1A1704	CONNECTOR (4P)	
CN5	SJSD1005	CONNECTOR (10P)	
CN6	RJS1A1704	CONNECTOR (4P)	
CN8	SJSD1005	CONNECTOR (10P)	
CN11, 12	RJU003K010M1	SOCKET (10P)	
CP1	SJTD413	CONNECTOR (4P)	
CP2	RJP5G18ZA	CONNECTOR (5P)	
CP11, 12	RJT003K010M1	CONNECTOR (10P)	
		JACK(S)	
JK1	SJF3069-2N	TERMINAL BOARD	
JK3-5	RJJ33T01	M3 JACK	
JK7	RJS1A0203-0	SOCKET (3P) TO AMPLIFIER	⚠
		GND PART(S)	

Ref. No.	Part No.	Part Name & Description	Remarks
E1	SNE1004-1	GND PLATE	
		FLAT CABLE(S)	
W3	RWJ0207210QQ	FLAT CABLE (7P)	
W4	RWJ1804200QQ	FLAT CABLE (4P)	
W5	RWJ0210200QQ	FLAT CABLE (10P)	
W6	RWJ1804200QQ	FLAT CABLE (4P)	
W8	RWJ0210200KQ	FLAT CABLE (10P)	

■ RESISTORS & CAPACITORS

Notes : • Capacity valuse are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
• Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ394	1/4W 390K
R3, 4	ERDS2TJ393	1/4W 39K
R5, 6	ERDS2TJ183T	1/4W 18K
R9, 10	ERDS2TJ332	1/4W 3.3K
R11, 12	ERDS2TJ561	1/4W 560
R13, 14	ERDS2TJ332	1/4W 3.3K
R19, 20	ERDS2TJ101	1/4W 100
R21, 22	ERDS2TJ104	1/4W 100K
R23, 24	ERDS2TJ101	1/4W 100
R25, 26	ERDS2TJ225	1/4W 2.2M
R27, 28	ERDS2EJ121	1/4W 120
R29, 30	ERDS2TJ103	1/4W 10K
R31, 32	ERDS2TJ273	1/4W 27K
R33, 34	ERDS2TJ183T	1/4W 18K
R35, 36	ERDS2TJ474	1/4W 470K
R37, 38	ERDS2TJ272T	1/4W 2.7K
R43, 44	ERDS2TJ103	1/4W 10K
R45, 46	ERDS2TJ223	1/4W 22K
R47, 48	ERDS2TJ472	1/4W 4.7K
R49, 50	ERDS2TJ122	1/4W 1.2K
R51, 52	ERDS2TJ330	1/4W 33
R53, 54	ERDS2TJ562	1/4W 5.6K
R55, 56	ERDS2TJ272T	1/4W 2.7K
R57, 58	ERDS2TJ103	1/4W 10K
R59, 60	ERDS2TJ332	1/4W 3.3K
R61, 62	ERDS2TJ152	1/4W 1.5K
R65	ERDS2TJ392T	1/4W 3.9K
R67	ERDS2TJ103	1/4W 10K
R85	ERDS2TJ101	1/4W 100
R91	ERDS2TJ124T	1/4W 120K
R93	ERDS2TJ273	1/4W 27K
R94	ERDS2TJ123	1/4W 12K
R131, 132	ERDS2TJ104	1/4W 100K
R133, 134	ERDS2TJ562	1/4W 5.6K
R135, 136	ERDS2TJ822	1/4W 8.2K
R137, 138	ERDS2TJ562	1/4W 5.6K
R144, 145	ERDS2TJ103	1/4W 10K
R301	ERDS2TJ1R0	1/4W 1.0
R302, 303	ERDS2TJ183T	1/4W 18K
R304, 305	ERDS2TJ100	1/4W 10
R306	ERDS2TJ471	1/4W 470
R307	ERDS2TJ561	1/4W 560
R405, 406	ERDS2TJ242	1/4W 2.4K
R407, 408	ERDS2TJ562	1/4W 5.6K
R409, 410	ERDS2TJ243T	1/4W 24K
R411, 412	ERDS2TJ561	1/4W 560
R417	ERDS2TJ151	1/4W 150
R418	ERDS2TJ273	1/4W 27K
R551-556	ERDS2TJ473	1/4W 47K
R557, 558	ERDS2TJ220T	1/4W 22
R559, 560	ERDS2TJ152	1/4W 1.5K
R561	ERDS2TJ102	1/4W 1K
R562	ERDS2TJ471	1/4W 470
R563, 564	ERDS2TJ103	1/4W 10K
R565	ERDS2TJ105T	1/4W 1M
R566, 567	ERDS2TJ103	1/4W 10K
R569	ERDS2TJ105T	1/4W 1M
R605, 606	ERD2FCVJ5R6T	1/4W 5.6 ⚠
R607, 608	ERDS2TJ102	1/4W 1K
R611	ERD2FCVG100T	1/4W 10 ⚠
R612	ERD2FCVG270T	1/4W 27 ⚠
R613	ERDS2TJ102	1/4W 1K
R614	ERDS2TJ222	1/4W 2.2K
R615, 616	ERDS2TJ270T	1/4W 27
R617, 618	ERQ16NKWR15E	1W 0.15
R619-621	ERDS2TJ560T	1/4W 56
R623	ERDS2TJ560T	1/4W 56
R624, 625	ERDS2TJ270T	1/4W 27
R631	ERD25FVJ2R7T	1/4W 2.7 ⚠
R701	ERDS2TJ821	1/4W 820
R702	ERDS2TJ102	1/4W 1K
R703	ERDS2TJ122	1/4W 1.2K
R704	ERDS2TJ152	1/4W 1.5K
R705	ERDS2TJ182	1/4W 1.8K
R706	ERDS2TJ222	1/4W 2.2K
R707	ERDS2TJ332	1/4W 3.3K
R708	ERDS2TJ472	1/4W 4.7K
R713	ERDS2TJ821	1/4W 820
R714	ERDS2TJ102	1/4W 1K
R715	ERDS2TJ122	1/4W 1.2K
R716	ERDS2TJ152	1/4W 1.5K

Ref. No.	
R717	ERDS
R718	ERDS
R719	ERDS
R720	ERDS
R721	ERDS
R722	ERDS
R852	ERD2
R902	ERDS
R903	ERDS
R904, 905	ERDS
R906	ERDS
R907	ERDS
R908-910	ERDS
R911	ERDS
R912	ERDS
R913	ERDS
R914	ERDS
R915	ERDS
R916	ERDS
R917, 918	ERDS
R919	ERDS
R920-922	ERDS
R923	ERDS
R924	ERDS
R925	ERDS
R926	ERDS
R927	ERDS
R928	ERDS
R931	ERDS
R932	ERDS
R933	ERDS
R934	ERDS
R935	ERDS
R938, 939	ERDS
R941	ERDS
R943	ERDS
R945	ERDS
R948	ERDS
R949	ERDS
R950	ERDS
R951	ERDS
R952	ERDS
R953	ERDS
R954	ERDS
R955	ERDS
R956	ERDS
R957	ERDS
R958	ERDS
R959	ERDS
R960	ERDS
R961	ERDS
R962	ERDS

Remarks
⚠

Ref. No.	Part No.	Part Name & Description	Remarks
E1	SNE1004-1	GND PLATE	
		FLAT CABLE(S)	
W3	RWJ0207210QQ	FLAT CABLE(7P)	
W4	RWJ1804200QQ	FLAT CABLE(4P)	
W5	RWJ0210200QQ	FLAT CABLE(10P)	
W6	RWJ1804200QQ	FLAT CABLE(4P)	
W8	RWJ0210200KQ	FLAT CABLE(10P)	

■ RESISTORS & CAPACITORS

Notes : * Capacity valuse are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ394	1/4W 390K
R3, 4	ERDS2TJ393	1/4W 39K
R5, 6	ERDS2TJ183T	1/4W 18K
R9, 10	ERDS2TJ332	1/4W 3.3K
R11, 12	ERDS2TJ561	1/4W 560
R13, 14	ERDS2TJ332	1/4W 3.3K
R19, 20	ERDS2TJ101	1/4W 100
R21, 22	ERDS2TJ104	1/4W 100K
R23, 24	ERDS2TJ101	1/4W 100
R25, 26	ERDS2TJ225	1/4W 2.2M
R27, 28	ERDS2EJ121	1/4W 120
R29, 30	ERDS2TJ103	1/4W 10K
R31, 32	ERDS2TJ273	1/4W 27K
R33, 34	ERDS2TJ183T	1/4W 18K
R35, 36	ERDS2TJ474	1/4W 470K
R37, 38	ERDS2TJ272T	1/4W 2.7K
R43, 44	ERDS2TJ103	1/4W 10K
R45, 46	ERDS2TJ223	1/4W 22K
R47, 48	ERDS2TJ472	1/4W 4.7K
R49, 50	ERDS2TJ122	1/4W 1.2K
R51, 52	ERDS2TJ330	1/4W 33
R53, 54	ERDS2TJ562	1/4W 5.6K
R55, 56	ERDS2TJ272T	1/4W 2.7K
R57, 58	ERDS2TJ103	1/4W 10K
R59, 60	ERDS2TJ332	1/4W 3.3K

Ref. No.	Part No.	Values & Remarks
R61, 62	ERDS2TJ152	1/4W 1.5K
R65	ERDS2TJ392T	1/4W 3.9K
R67	ERDS2TJ103	1/4W 10K
R85	ERDS2TJ101	1/4W 100
R91	ERDS2TJ124T	1/4W 120K
R93	ERDS2TJ273	1/4W 27K
R94	ERDS2TJ123	1/4W 12K
R131, 132	ERDS2TJ104	1/4W 100K
R133, 134	ERDS2TJ562	1/4W 5.6K
R135, 136	ERDS2TJ822	1/4W 8.2K
R137, 138	ERDS2TJ562	1/4W 5.6K
R144, 145	ERDS2TJ103	1/4W 10K
R301	ERDS2TJ1R0	1/4W 1.0
R302, 303	ERDS2TJ183T	1/4W 18K
R304, 305	ERDS2TJ100	1/4W 10
R306	ERDS2TJ471	1/4W 470
R307	ERDS2TJ561	1/4W 560
R405, 406	ERDS2TJ242	1/4W 2.4K
R407, 408	ERDS2TJ562	1/4W 5.6K
R409, 410	ERDS2TJ243T	1/4W 24K
R411, 412	ERDS2TJ561	1/4W 560
R417	ERDS2TJ151	1/4W 150
R418	ERDS2TJ273	1/4W 27K
R551-556	ERDS2TJ473	1/4W 47K
R557, 558	ERDS2TJ220T	1/4W 22
R559, 560	ERDS2TJ152	1/4W 1.5K
R561	ERDS2TJ102	1/4W 1K
R562	ERDS2TJ471	1/4W 470

Ref. No.	Part No.	Values & Remarks
R563, 564	ERDS2TJ103	1/4W 10K
R565	ERDS2TJ105T	1/4W 1M
R566, 567	ERDS2TJ103	1/4W 10K
R569	ERDS2TJ105T	1/4W 1M
R605, 606	ERD2FCVJ5R6T	1/4W 5.6 ⚠
R607, 608	ERDS2TJ102	1/4W 1K
R611	ERD2FCVG100T	1/4W 10 ⚠
R612	ERD2FCVG270T	1/4W 27 ⚠
R613	ERDS2TJ102	1/4W 1K
R614	ERDS2TJ222	1/4W 2.2K
R615, 616	ERDS2TJ270T	1/4W 27
R617, 618	ERQ16NKWR15E	1W 0.15
R619-621	ERDS2TJ560T	1/4W 56
R623	ERDS2TJ560T	1/4W 56
R624, 625	ERDS2TJ270T	1/4W 27
R631	ERD25FVJ2R7T	1/4W 2.7 ⚠
R701	ERDS2TJ821	1/4W 820
R702	ERDS2TJ102	1/4W 1K
R703	ERDS2TJ122	1/4W 1.2K
R704	ERDS2TJ152	1/4W 1.5K
R705	ERDS2TJ182	1/4W 1.8K
R706	ERDS2TJ222	1/4W 2.2K
R707	ERDS2TJ332	1/4W 3.3K
R708	ERDS2TJ472	1/4W 4.7K
R713	ERDS2TJ821	1/4W 820
R714	ERDS2TJ102	1/4W 1K
R715	ERDS2TJ122	1/4W 1.2K
R716	ERDS2TJ152	1/4W 1.5K

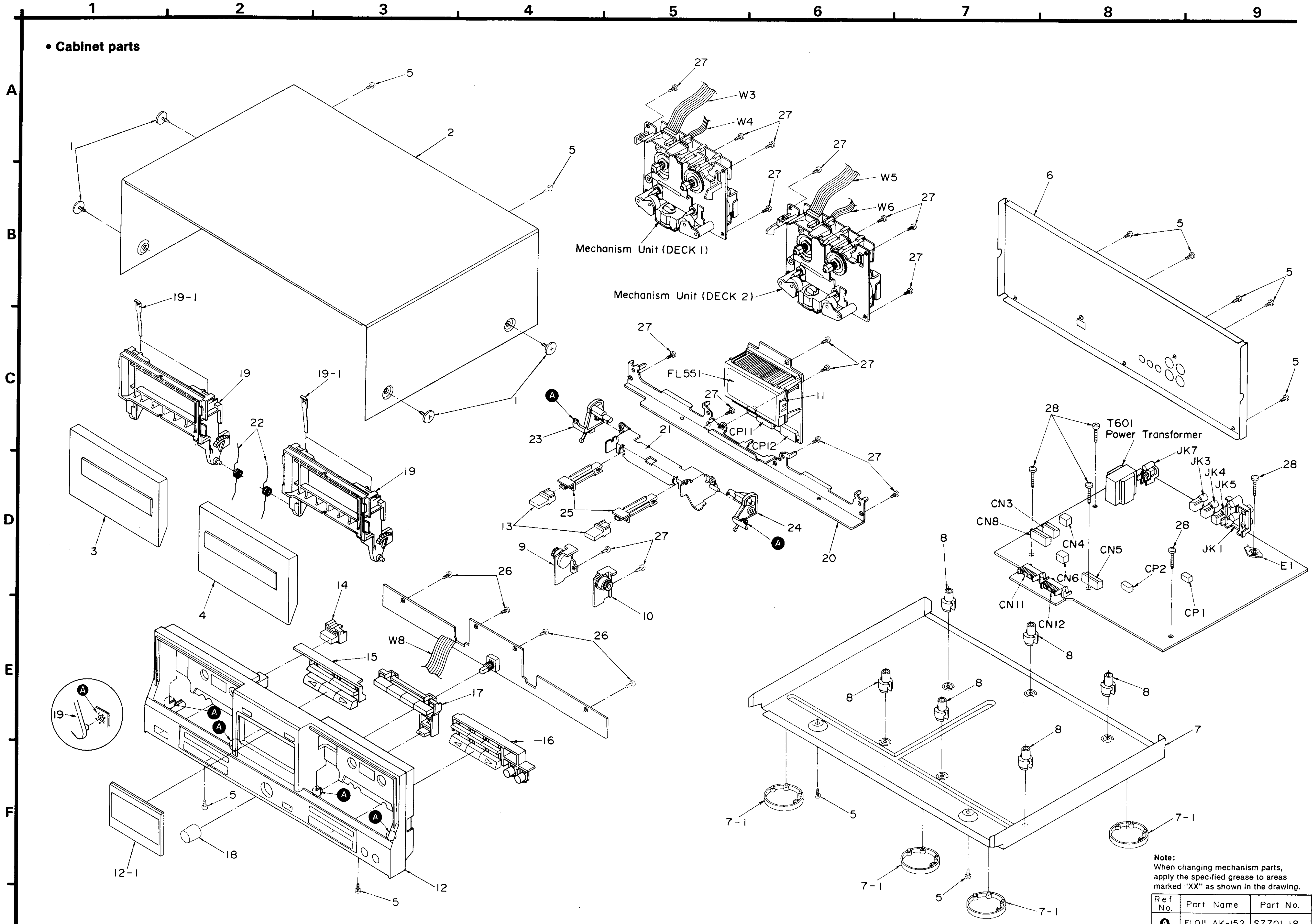
Ref. No.	Part No.	Values & Remarks
R717	ERDS2TJ182	1/4W 1.8K
R718	ERDS2TJ222	1/4W 2.2K
R719	ERDS2TJ332	1/4W 3.3K
R720	ERDS2TJ472	1/4W 4.7K
R721	ERDS2TJ682T	1/4W 6.8K
R722	ERDS2TJ123	1/4W 12K
R852	ERD2FCVG470T	1/4W 47 ⚠
R902	ERDS2TJ822	1/4W 8.2K
R903	ERDS2TJ393	1/4W 39K
R904, 905	ERDS2TJ222	1/4W 2.2K
R906	ERDS2TJ103	1/4W 10K
R907	ERDS2TJ563	1/4W 56K
R908-910	ERDS2TJ103	1/4W 10K
R911	ERDS2TJ392T	1/4W 3.9K
R912	ERDS2TJ222	1/4W 2.2K
R913	ERDS2TJ271	1/4W 270
R914	ERDS2TJ681	1/4W 680
R915	ERDS2TJ473	1/4W 47K
R916	ERDS2TJ272T	1/4W 2.7K
R917, 918	ERDS2TJ103	1/4W 10K
R919	ERDS2TJ471	1/4W 470
R920-922	ERDS2TJ103	1/4W 10K
R923	ERDS2TJ100	1/4W 10
R924	ERDS2TJ103	1/4W 10K
R925	ERDS2TJ223	1/4W 22K
R926	ERDS2TJ100	1/4W 10
R927	ERDS2TJ223	1/4W 22K
R928	ERDS2TJ273	1/4W 27K
R931	ERDS2TJ102	1/4W 1K
R932	ERDS2TJ392T	1/4W 3.9K
R933	ERDS2TJ472	1/4W 4.7K
R934	ERDS2TJ105T	1/4W 1M
R935	ERDS2TJ182	1/4W 1.8K
R938, 939	ERDS2TJ472	1/4W 4.7K
R941	ERDS2TJ102	1/4W 1K
R943	ERDS2TJ103	1/4W 10K
R945	ERDS2TJ822	1/4W 8.2K
R948	ERDS2TJ184T	1/4W 180K
R949	ERDS2TJ103	1/4W 10K
R950	ERDS2TJ332	1/4W 3.3K
R951	ERDS2TJ103	1/4W 10K
R952	ERDS2TJ392T	1/4W 3.9K
R953	ERDS2TJ103	1/4W 10K
R954	ERDS2TJ223	1/4W 22K
R955	ERDS2TJ821	1/4W 820
R956	ERDS2TJ223	1/4W 22K
R957	ERDS2TJ821	1/4W 820
R958	ERDS2TJ223	1/4W 22K
R959	ERDS2TJ821	1/4W 820
R960	ERDS2TJ153	1/4W 15K
R961	ERDS2TJ221	1/4W 220
R962	ERDS2TJ103	1/4W 10K

Ref. No.	Part No.	Values & Remarks
R963	ERDS2TJ392T	1/4W 3.9K
R964	ERDS2TJ184T	1/4W 180K
R965	ERDS2TJ103	1/4W 10K
R966	ERDS2TJ223	1/4W 22K
R967	ERDS2TJ821	1/4W 820
R968, 969	ERDS2TJ472	1/4W 4.7K
R973	ERDS2TJ472	1/4W 4.7K
R979	ERDS2TJ153	1/4W 15K
R980-985	ERDS2TJ393	1/4W 39K
R986	ERDS2TJ103	1/4W 10K
R990	ERDS2TJ100	1/4W 10
R993	ERDS2TJ103	1/4W 10K
R994	ERDS2TJ102	1/4W 1K
R995, 996	ERDS2TJ100	1/4W 10
R997	ERDS2TJ562	1/4W 5.6K
R998	ERDS2TJ100	1/4W 10
		CAPACITORS
C1-3	ECEA1HKA010B	50V 1U
C5, 6	ECEA1CKA220B	16V 22U
C7-10	ECBT1H561KB5	50V 560P
C11, 12	ECBT1H102KB5	50V 1000P
C13, 14	ECEA0JKA101B	6.3V 100U
C15, 16	ECQB1H682JZ3	50V 6800P
C17-20	ECEA1EKA4R7B	25V 4.7U
C21	ECEA0JKA101B	6.3V 100U
C25, 26	ECEA1EKA4R7B	25V 4.7U
C27, 28	ECBT1H561KB5	50V 560P
C29, 30	ECKR2H101KB5	500V 100P
C31, 32	ECBT1H181KB5	50V 180P
C33, 34	ECEA1HKAR47B	50V 0.47U
C35, 36	ECQB1H472JZ	50V 4700P
C37, 38	ECQB1H223JZ3	50V 0.022U
C39, 40	ECQB1H103JZ	50V 0.01U
C41, 42	ECQB1H223JZ3	50V 0.022U
C43, 44	ECQB1H153JZ	50V 0.015U
C45, 46	ECBT1E103ZF	25V 0.01U
C49, 50	ECEA1CKA100B	16V 10U
C53, 54	ECQV1H563JZ3	50V 0.056U
C55	ECBT1E103ZF	25V 0.01U
C57, 58	ECEA1AKA470B	10V 47U
C63	ECEA1CKA100B	16V 10U
C64	ECEA1HN010	50V 1U
C71, 72	ECBT1H391KB5	50V 390P
C73, 74	ECBT1C472KR5	16V 4700P
C81, 82	ECBT1H4R7KC5	50V 4.7P
C135, 136	ECQB1H822JZ	50V 8200P
C137, 138	ECQB1H153JZ	50V 0.015U
C301	ECQP1153JZ	100V 0.015U
C302	ECEA1CKA101B	16V 100U
C303	ECKR1H392KB5	50V 3900P

Ref. No.	Part No.	Values & Remarks
C304, 305	ECKW1H222KB5	50V 2200P
C306	ECKD1H682KB	50V 6800P
C307, 308	ECCR1H221K5	50V 220P
C309	ECKR1H103ZF5	50V 0.01U
C310	ECKR1H472KB5	50V 4700P
C331	ECKR1H103ZF5	50V 0.01U
C405-408	ECQB1H222JZ3	50V 2200P
C409, 410	ECEA1HUR56B	50V 0.56U
C411, 412	ECEA1HKAR33B	50V 0.33U
C413-416	ECEA1EKA4R7B	25V 4.7U
C551, 552	ECEA1CKA100B	16V 10U
C553, 554	ECEA0JKA101B	6.3V 100U
C555	ECKR1H103ZF5	50V 0.01U
C556	ECEA0JKA101B	6.3V 100U
C557	ECEA1EKA4R7B	25V 4.7U
C558	ECEA1HKA010B	50V 1U
C559	ECKR1H103ZF5	50V 0.01U
C561	ECKR1H103ZF5	50V 0.01U
C601	ECKR2H682PE	500V 6800P
C602, 603	ECA1EM102B	25V 1000U
C604, 605	ECKR1H103ZF5	50V 0.01U
C606, 607	ECEA1AKA221Q	10V 220U
C608, 609	ECKR1H103ZF5	50V 0.01U
C610, 611	ECEA1AU102B	10V 1000U
C612	ECEA1EU222B	25V 2200U
C613	ECA1HM470B	50V 47U
C618, 619	ECFR1E104ZF5	25V 0.1U
C901	ECA0JM222B	6.3V 2200U
C903	ECEA1HKA010B	50V 1U
C904	ECEA1EKA4R7B	25V 4.7U
C907	ECKR1H103ZF5	50V 0.01U
C912	ECKT1H122KB	50V 1200P
C915	ECBT1E103ZF	25V 0.01U
C916	ECEA1CKA100B	16V 10U

EXPLODED VIEW

- **Cabinet parts**


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
27
W3
W4
W5
W6
Mechanism Unit (DECK 1)
Mechanism Unit (DECK 2)
FL551
CP11
CP12
T601
Power Transformer
JK7
JK3
JK4
JK5
JK1
E1
CN3
CN8
CN4
CN5
CN6
CN11
CN12
CP1
CP2
W8
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10
11
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12-1
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14
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19-1
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7-1

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL18

REPLACEM

Notes : * Importan
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Parts wi

Ref. No.	Part No.
1	RHD30007
2	RKM0024-2K
3	RYF0104A-K2
4	RYF0105A-K2
5	XTBS3+8JFZ1
6	RGR0102A-C
6	RGR0102A-E
7	RFKJTX302LEK
7-1	RKA0011-2
8	RKQ0089
9	RFKNSDN7AK
10	RFKNSDN7BK
11	RMN0135
12	RFKGSX102E-K
12-1	RKW0165-K
13	RGU0070
14	RGU0453-K
15	RGU0458A-K1
16	RGU0459A-K
17	RFKNSX102E-K
18	RGW0098-K
19	RKF0169A-K
19-1	QBP2006A
20	RMA0159-1
21	RMA0373
22	RME0068-1
23	RML0185-1
24	RML0186-1
25	RMM0041
26	XTBS26+10J
27	XTB3+10JFZ
28	XTB3+20JFZ
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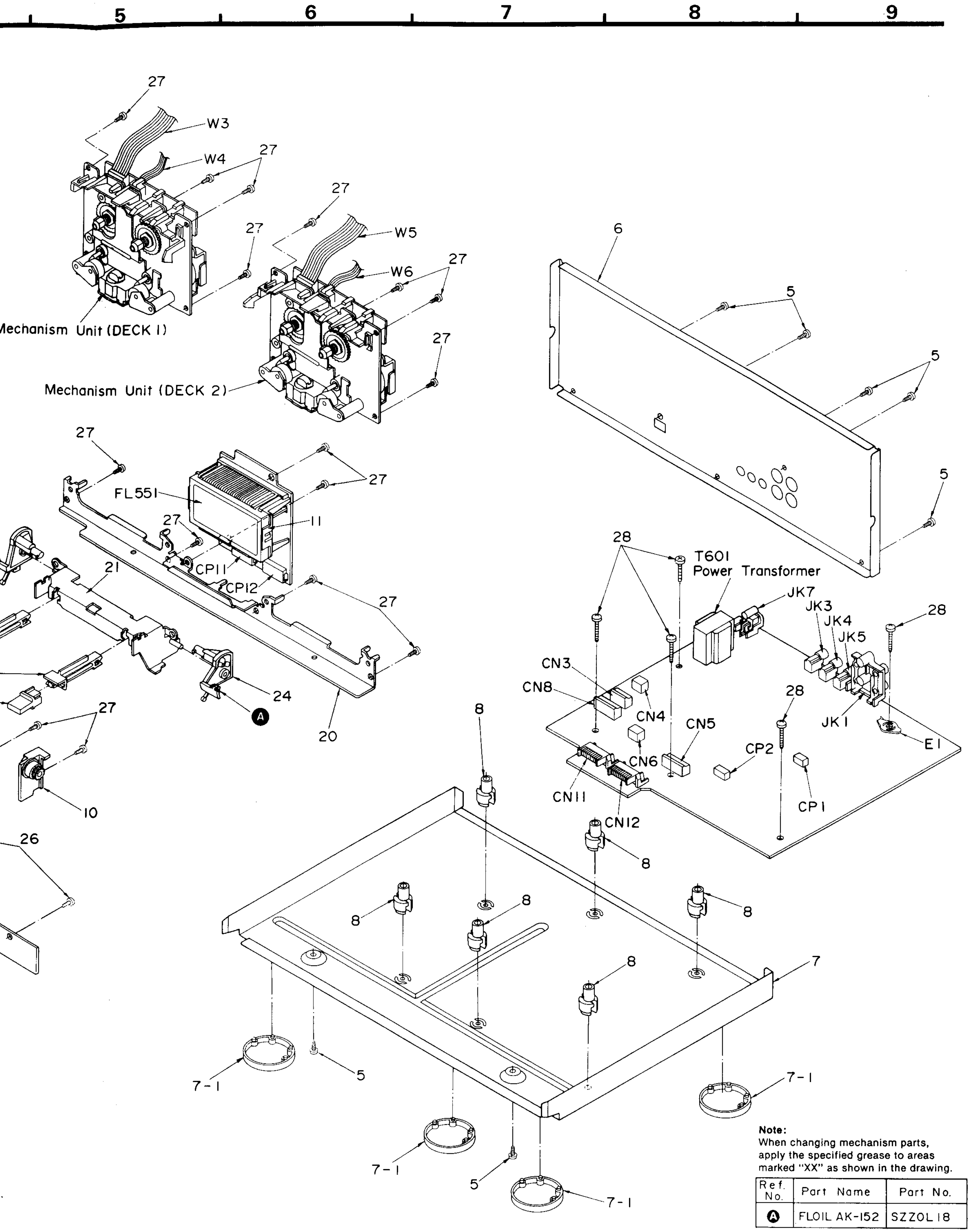
P2	RPN0383-1
P3	SPSD152
P4	SPP756
A1	RQF1086
A1	RQF1087



Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL18

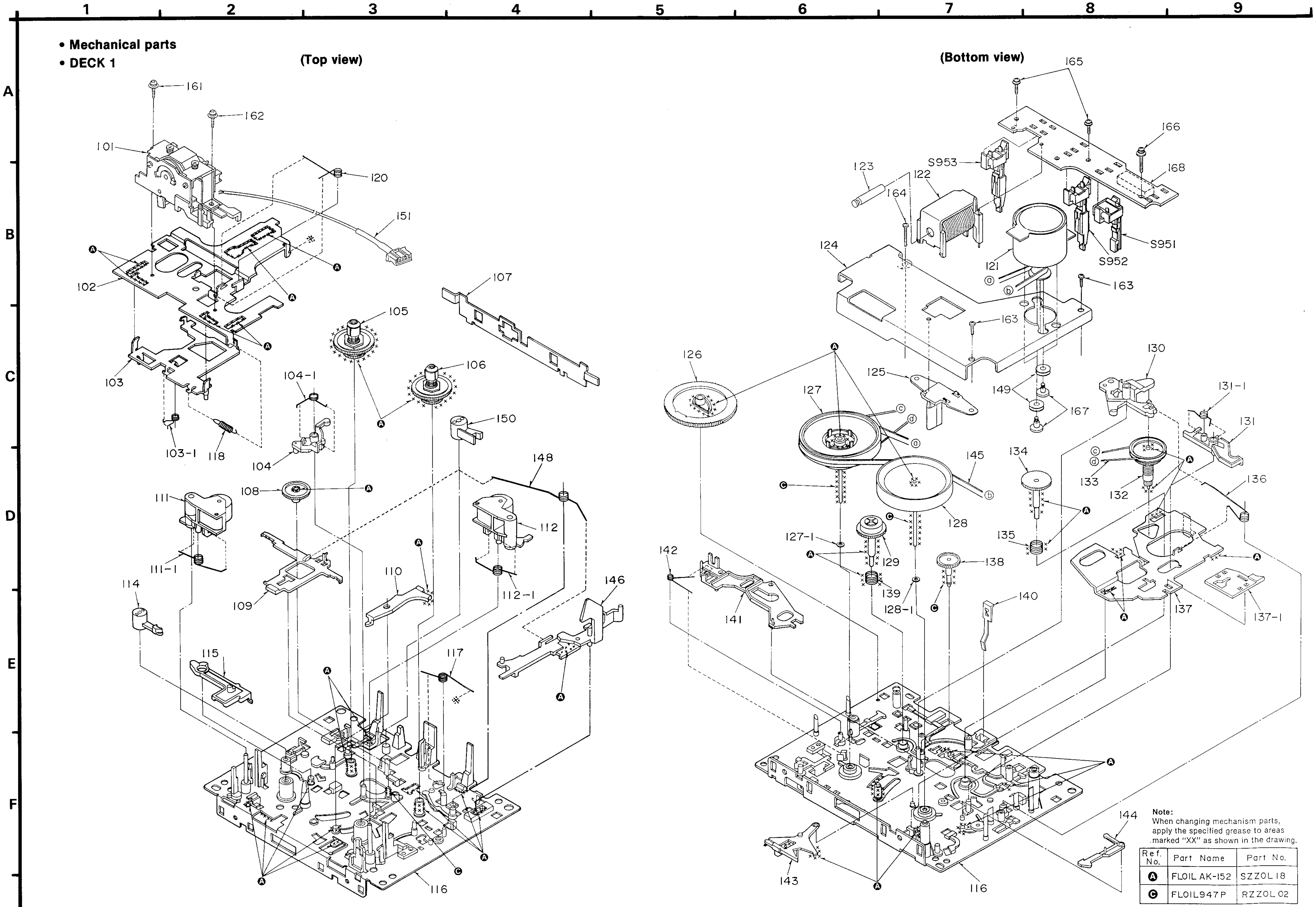
REPLACEMENT PARTS LIST

Notes : • Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
• The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RHD30007	SCREW	
2	RKM0024-2K	CABINET	
3	RYF0104A-K2	CASSETTE LID(DECK1)	
4	RYF0105A-K2	CASSETTE LID(DECK2)	
5	XTBS3+8JFZ1	SCREW	
6	RGR0102A-C	REAR PANEL	(E, EB, GC, GN)
6	RGR0102A-E	REAR PANEL	(EG)
7	RFKJTX302LEK	BOTTOM BOARD ASS'Y	
7-1	RKA0011-2	FOOT	
8	RKQ0089	P.C.B. HOLDER	
9	RFKNSDN7AK	DAMPER GEAR ASS'Y(L)	
10	RFKNSDN7BK	DAMPER GEAR ASS'Y(R)	
11	RMN0135	FL HOLDER	
12	RFKGSX102E-K	FRONT PANEL ASS'Y	
12-1	RKW0165-K	TRANSPARENT PLATE	
13	RGU0070	BUTTON, EJECT	
14	RGU0453-K	BUTTON, DECK(POWER)	
15	RGU0458A-K1	BUTTON, OPERATION(DECK1)	
16	RGU0459A-K	BUTTON, OPERATION(DECK2)	
17	RFKNSX102E-K	BUTTON ASS'Y, COUNT./SYNC.	
18	RGW0098-K	KNOB, REC LEVEL	
19	RKF0169A-K	CASSETTE HOLDER	
19-1	QBP2006A	TAPE PRESSURE SPRING	
20	RMA0159-1	MECHANISM ANGLE	
21	RMA0373	EJECT ANGLE	
22	RME0068-1	SPRING	
23	RML0185-1	EJECT LEVER(L)	
24	RML0186-1	EJECT LEVER(R)	
25	RMM0041	EJECT ROD	
26	XTBS26+10J	SCREW	
27	XTB3+10JFZ	SCREW	
28	XTB3+20JFZ	SCREW	
		PACKING MATERIAL	
P1	RPG0843	CARTON BOX	
P2	RPN0383-1	PAD	
P3	SPSD152	ACCESSORIES BOX	
P4	SPP756	PROTECTION COVER	
		ACCESSORIES	
A1	RQF1086	INSTRUCTION MANUAL UNIT	(E)
A1	RQF1087	INSTRUCTION MANUAL UNIT	(EB)
A1	RQF1088	INSTRUCTION MANUAL UNIT	(EG)
A1	RQF1089	INSTRUCTION MANUAL UNIT	(GC)
A1	RQF1090	INSTRUCTION MANUAL UNIT	(GN)
A1-1	RFKSUX302E-K	INSTRUCTION MANUAL ASS'Y	(E)
A1-1	RQT0990-G	INSTRUCTION MANUAL	(GC)
A1-1	RQT0992-B	INSTRUCTION MANUAL	(EB, GN)
A1-1	RQT0993-D	INSTRUCTION MANUAL	(EG)
A1-2	RQA0013	WARRANTY CARD	(E, EB, EG)
A1-2	SQX7186	WARRANTY CARD	(GN)
A1-3	RQCB0169	SERVICENTER LIST	
A2	REX0346	3-CORE FLAT CABLE	
A3	SJP2249-3	STEREO CONNECTION CABLE	
A4	SJP2257T	L-TYPE CABLE	

EXPLODED VIEWS

- **Mechanical parts**
- **DECK 1**


(Top view) (Bottom view)
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127-1
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128-1
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137-1
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144
116

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL18
Ⓒ	FLOIL947P	RZZOL02

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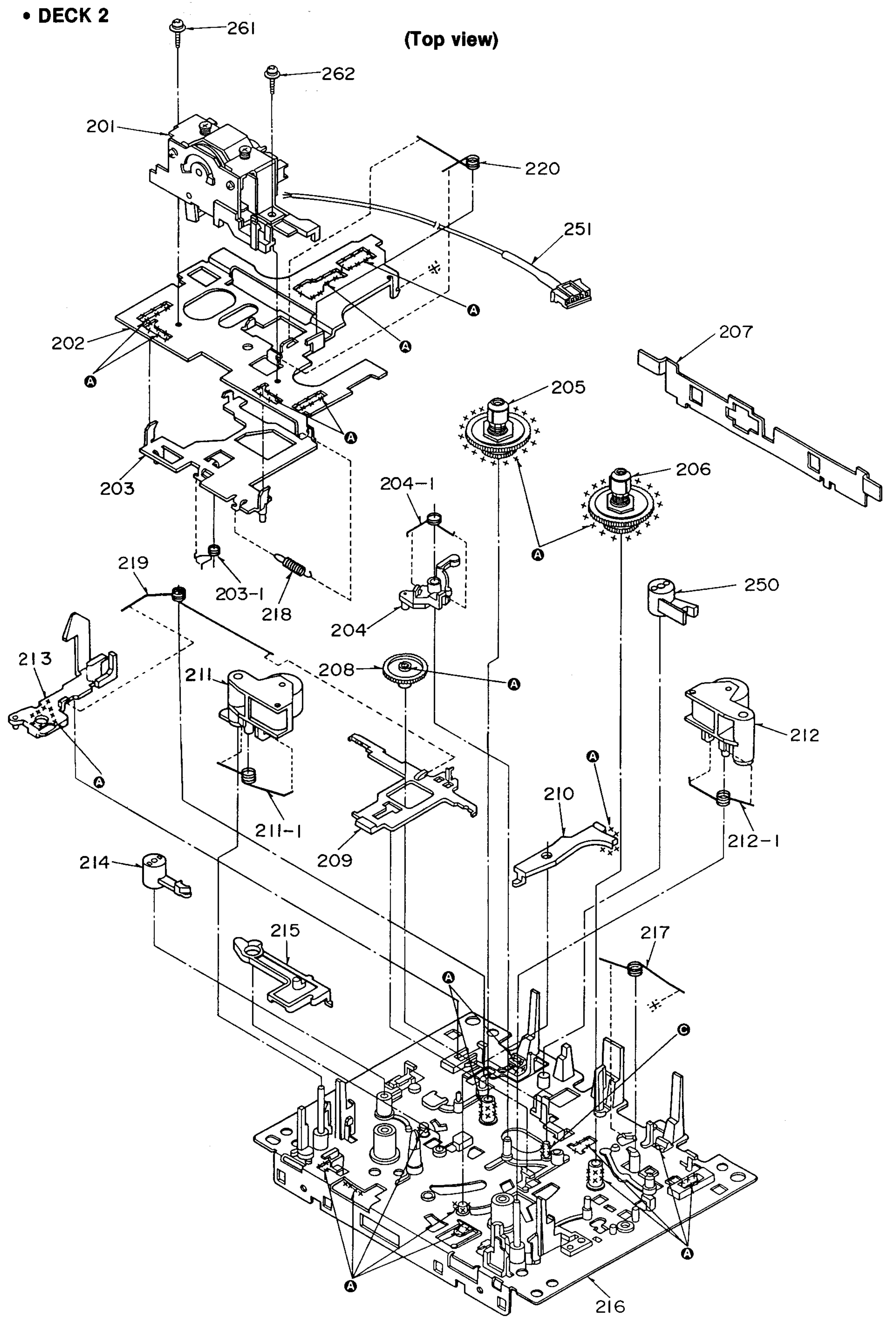
• DECK 2


(Top view)
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201
220
251
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203-1
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204-1
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211-1
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212-1
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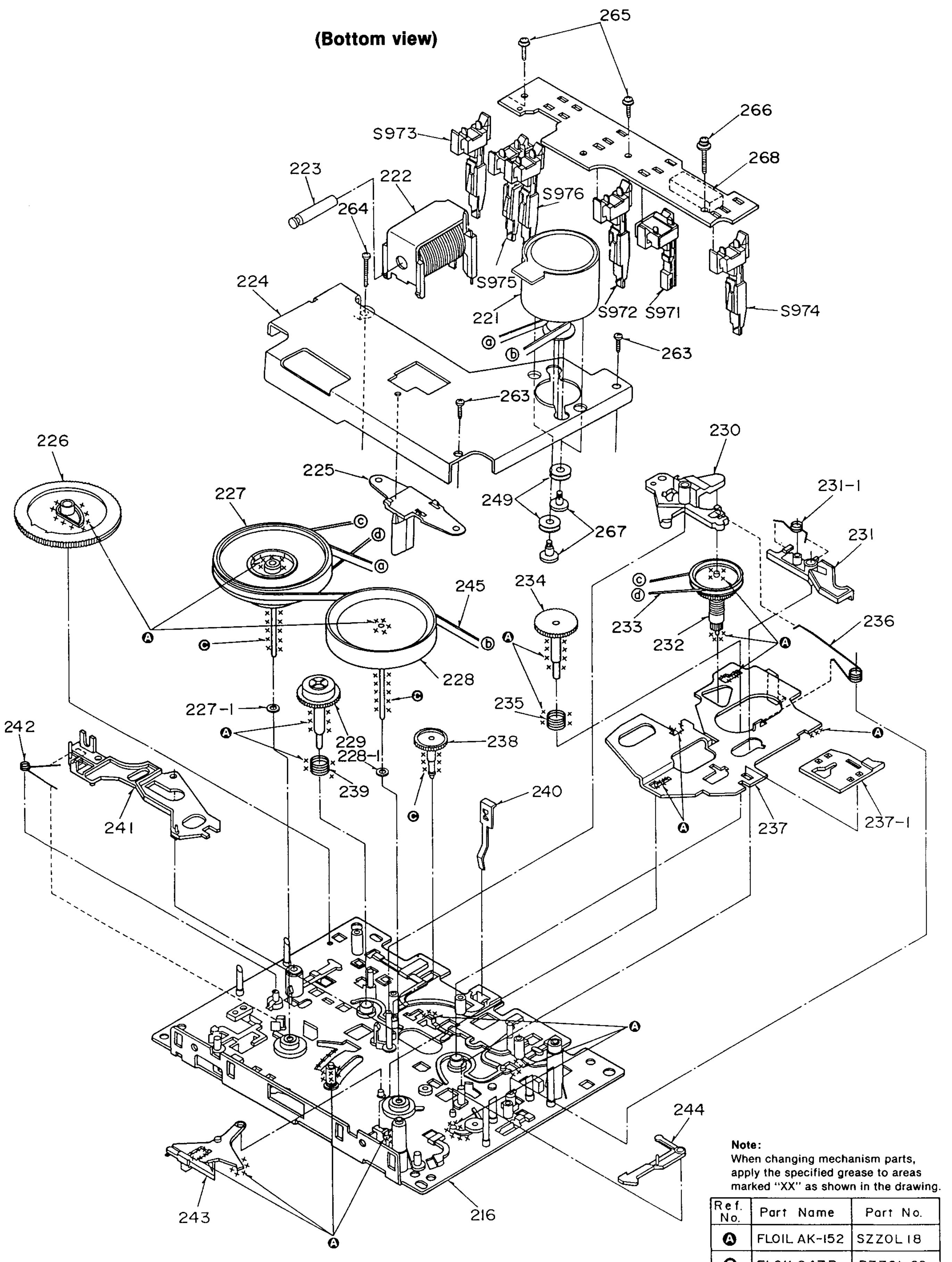
(Bottom view)
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S973
S976
S975
S972
S971
S974
223
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226
225
227
c
d
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227-1
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228-1
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242
241
240
237
237-1
243
216
244
A
C

Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL18
Ⓒ	FLOIL947P	RZZOL02

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST	
DECK1			
101	RXQ0021	HEAD BLOCK(PLAYBACK)	
102	RUA793ZF	HEAD BASE	
103	RZLAR300	ROD	
103-1	RUW143ZA	SPRING	
104	1UB0089ZA	ARM	
104-1	RUW148ZA	SPRING	
105	1DM0018ZA	REEL TABLE(R)	
106	1DM0017ZA	REEL TABLE(F)	
107	RML0069-1	LEVER	
108	RDG5772ZC	GEAR	
109	RUB508ZB	BRAKE ROD	
110	RUB506ZB	LEVER	
111	1UB0088ZA	ARM(R)	
111-1	RUW141ZA	SPRING	
112	1UB0087ZA	ARM(F)	
112-1	RUW140ZC	SPRING	
114	RNL1ZD	DAMPER ARM	
115	RUB503ZD	MAIN LEVER	
116	RZUSX980	CHASSIS	
117	RUW142ZA	SPRING	
118	RUD105ZA	SPRING	
120	RUW139ZA	SPRING	
121	RFM133ZA	DC MOTOR	
122	1UE0015ZA	PLUNGER	
123	RUB428ZE	MOVING IRON CORE	
124	RUL1030YA	ANGLE	
125	RMD5014ZC	ANGLE	
126	RDG5927ZG	GEAR	
127	1DW0037ZA	FLYWHEEL(F)	
127-1	RNW139ZA	WASHER	
128	1DW0038ZA	FLYWHEEL(R)	
128-1	RNW138ZA	WASHER	
129	1DG0006ZA	REEL TABLE GEAR	
130	RUB513ZD	ARM	
131	1UB0091ZA	LEVER	
131-1	RUW146ZA	SPRING	
132	1DR0011ZA	MAIN PULLEY	
133	RDV90ZB	BELT	
134	RDG5769ZA	REEL TABLE GEAR	
135	RUQ111ZB	SPRING	
136	RUW145ZA	SPRING	
137	1UB0090ZA	ROD	
137-1	RUB512ZB	F. F. ROD	
138	RDG5773ZB	GEAR	
139	RUQ112ZA	SPRING	
140	RUS609ZC	TAPE PRESSURE SPRING	
141	RUB514ZC	LEVER	
142	RUW147ZA	SPRING	
143	RUB515ZA	LEVER	
144	RUB509ZA	LEVER	
145	RDV108ZA	CAPSTAN BELT	
146	RUB507ZD	EJECT ROD(R)	
148	RUW144ZA	SPRING	
149	RHG3032ZA	RUBBER CUSHION	
150	RNL180ZB	DAMPRE ARM	
151	REX0061	LEAD WIRE BLOCK(4P)	
161	XTW2+6L	SCREW	
162	XTW2+8L	SCREW	
163	XTN26+7J	SCREW	
164	RHE5203ZA	SCREW	
165	XTW2+8S	SCREW	
166	XYC2+JF16	SCREW	
167	RHD26002	SCREW	
168	RJS7T7ZA	CONNECTOR(7P), J951	

Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST	
DECK2			
201	RXQ0019	HEAD BLOCK(REC./PLAYBACK)	
202	RUA793ZF	HEAD BASE	
203	RZLAR300	ROD	
203-1	RUW143ZA	SPRING	
204	1UB0089ZA	ARM	
204-1	RUW148ZA	SPRING	
205	1DM0018ZA	REEL TABLE(R)	
206	1DM0017ZA	REEL TABLE(F)	
207	RML0069-1	LEVER	
208	RDG5772ZC	GEAR	
209	RUB508ZB	BRAKE ROD	
210	RUB506ZB	LEVER	
211	1UB0088ZA	ARM(R)	
211-1	RUW141ZA	SPRING	
212	1UB0087ZA	ARM(F)	
212-1	RUW140ZC	SPRING	
213	RUB541ZB	EJECT ROD(L)	
214	RNL1ZD	DAMPER ARM	
215	RUB503ZD	MAIN LEVER	
216	RZUSX980	CHASSIS	
217	RUW142ZA	SPRING	
218	RUD105ZA	SPRING	
219	RUW167ZA	SPRING	
220	RUW139ZA	SPRING	
221	RFM133ZA	DC MOTOR	
222	1UE0015ZA	PLUNGER	
223	RUB428ZE	MOVING IRON CORE	
224	RUL1030YA	ANGLE	
225	RMD5014ZC	ANGLE	
226	RDG5927ZG	GEAR	
227	1DW0037ZA	FLYWHEEL(F)	
227-1	RNW139ZA	WASHER	
228	1DW0038ZA	FLYWHEEL(R)	
228-1	RNW138ZA	WASHER	
229	1DG0006ZA	REEL TABLE GEAR	
230	RUB513ZD	ARM	
231	1UB0091ZA	LEVER	
231-1	RUW146ZA	SPRING	
232	1DR0011ZA	MAIN PULLEY	
233	RDV90ZB	BELT	
234	RDG5769ZA	REEL TABLE GEAR	
235	RUQ111ZB	SPRING	
236	RUW145ZA	SPRING	
237	1UB0090ZA	ROD	
237-1	RUB512ZB	F.F. ROD	
238	RDG5773ZB	GEAR	
239	RUQ112ZA	SPRING	
240	RUS609ZC	TAPE PRESSURE SPRING	
241	RUB514ZC	LEVER	
242	RUW147ZA	SPRING	
243	RUB515ZA	LEVER	
244	RUB509ZA	LEVER	
245	RDV108ZA	CAPSTAN BELT	
249	RHG3032ZA	RUBBER CUSHION	
250	RNL180ZB	DAMPER ARM	
251	REX0059	LEAD WIRE BLOCK(5P)	
261	XTW2+6L	SCREW	
262	XTW2+8L	SCREW	
263	XTN26+7J	SCREW	
264	RHE5203ZA	SCREW	
265	XTW2+8S	SCREW	
266	XYC2+JF16	SCREW	
267	RHD26002	SCREW	
268	RJS10T7ZA	CONNECTOR(10P),J971	

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